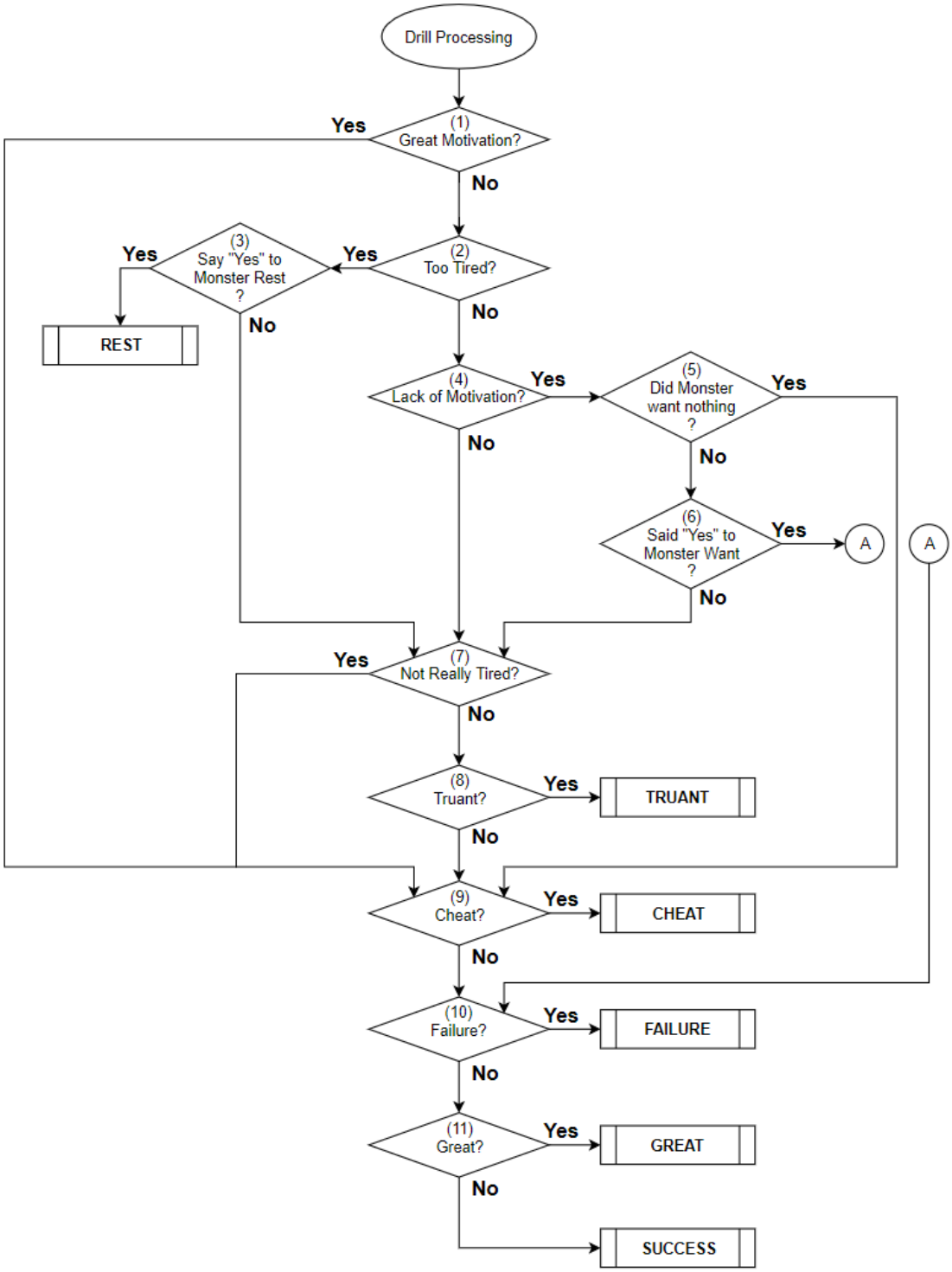
Monster Rancher 2 Drill Processing

Here is a flow chart for the drill processing in Monster Rancher 2. Starting on the following page is a list of definitions of each of the inputs that go into making each decision below. Continuing on after the definitions are each decision explained with the specific inputs that each require as well as any monster effects. This is followed up by Keeping and Breaking Promises, Post Drill Effects, and Errors. Finally, the last pages are the appendices that will give more technical details about the inputs and specific calculations that are made at each decision block.



Monster Rancher 2 Drill Processing

(0) Drill Input Definitions

a. ITEM GROUP SELECTION -> this selection of 0, 1, or 2 determines what group of items your monster chooses from. It is randomly selected at monster creation.

b. MOTIVATION -> motivation is what drives your monster to do well on each of its drills. Your monster has separate motivations for each of its drills. Your monster has a range of being 0% to 100% motivated. Your monster will respond differently on drill selection based on its motivation, see table below. See appendix for calculation.

Negative	Neutral	Positive
0-29	30-80	81-100

c. FATIGUE -> fatigue is how tired (physical strain) your monster gets from doing tasks, like drills, errantries, expeditions, and battles. Your monster has a range of being 0% to 100% fatigued. Colt will indicate you how fatigued your monster is at the beginning of every week with what she tells you.

Very Well	Well	Seems Well	Tired	Pretty Tired	Very Tired	Pass Out
0	1-19	20-39	40-59	60-79	80-95	96-100

d. STRESS -> stress is how tense (emotional strain) your monster gets from anything that happens to it, like doing a task or getting an item or not being encouraged. Your monster has a range of being 0% to 100% stressed. Colt will indicate how stressed your monster is at the beginning of week 1 with what she tells you. If she says anything, your stress level is between 20% and 100%.

e. SPOIL -> spoil is a measure of how lenient or indulgent you are to your monster on interactions with it, like giving it items or letting it rest or not scolding it when it should be. Your monster has a range of being 0% to 100% spoiled.

f. FEAR -> fear is a measure of how tough you are on your monster on interactions with it, like giving it items or letting it rest or scolding it when it should be. Your monster has a range of being 0% to 100% fearful.

g. STYLE -> style is a measure of your training style based on the spoil and the fear of your monster. Style will affect the outcomes of certain situations (TBA) in the game. Style is just the difference between spoil and fear (style = spoil - fear). The main display has an indication of its value:

Spartan	Harsh	Strict	Even	Soft	Fond	Doting
-100 to -80	-79 to -50	-49 to -20	-19 to 19	20 to 49	50 to 79	80 to 100

h. LOYALTY -> loyalty is a measure of how faithful your monster is. Loyalty will affect the outcomes of certain situations (TBA) in the game. Loyalty is a pseudo average of fear and spoil. See appendix for calculation.

i. FORM -> form is a measure of the size of your monster. Size affects your speed and defense in battle. The monster data display has an indication of its value:

Skinny	Slim	Normal	Fat	Plump
-100 to -60	-59 to -20	-19 to 19	20 to 59	60 to 100

j. ATTRIBUTE GAIN -> attribute gain represents how good you are at gaining in an attribute. Each easy drill corresponds to a specific attribute, while each hard drill affects 2 attributes positively and 1 negatively.

k. NATURE -> nature shows your monsters character and is an indication of how it will be affected or how it will respond to things that happen to it. See nature calculation in appendix for further details about BASE NATURE and NATURE ADJUSTMENT. Your monster has a range of -100 to 100 for its nature. The monster data display has an indication of its value:

Worst	Bad	Neutral	Good	Best
-100 to -60	-59 to -20	-19 to 19	20 to 59	60 to 100

l. LIFE STAGE -> life stage is where your monster is at in its development. Your monster has 10 life stages.

m. SMALL RANDOM NUMBER -> Small random number is a pseudo random number in the range of 0 to 255. Its value is predictable based on its current value. See appendix for calculation.

Monster Rancher 2 Drill Processing

(1) Great Motivation?
   a. Input into this determination is MOTIVATION.
   b. Great motivation is determined by MOTIVATION > 80 for the specific drill that you are trying to do. When you are greater than 80, then you proceed to "Cheat?"; otherwise, you proceed to "Too Tired?".

(2) Too Tired?
   a. Inputs into this determination are LIFE STAGE, FATIGUE, NATURE, and SMALL RANDOM NUMBER.
   b. Too tired is determined by FATIGUE >= "Too Tired Threshold". When you are greater than or equal to, you proceed to "Say "Yes" to Monster Rest?"; otherwise, you proceed to "Lack of Motivation?" . See appendix section "c" for calculation of "Too Tired Threshold".

(3) Say "Yes" to Monster Rest?
   a. Colt will say to you "'Monster Name' seems tired. Do you want to give it some rest?"
   b. Saying "Yes" will result in the following effects on your monster while allowing it to rest going into the beginning of the next week:
      i. FEAR will be adjusted (F: -10, S: 0) - (See end of appendix for exact fear, spoil, and stress calculations)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-10	-9	-7	-6	-5	-4	-3	-1	0

      ii. SPOIL will be adjusted (F: 0, S: 20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	2	5	8	10	12	15	18	20

      iii. The following are normal effects of resting
         1. SIZE will be increased by 5
         2. STRESS will be reduced by a Life Stage based, Small Random Number adjusted value (table below)

Life Stage	1	2	3	4	5	6	7	8	9	10
Value	5-8	5-8	5-10	7-10	9-12	9-12	5-10	5-8	5-8	5-6

         3. FATIGUE will be reduced by a Life Stage based, Small Random Number adjusted value (table below)

Life Stage	1	2	3	4	5	6	7	8	9	10
Min Value	36-39	38-43	40-47	42-51	44-55	44-55	40-47	32-39	32-37	32-35

   c. Saying "No" will result in the following effects on your monster while proceeding to "Not Really Tired?":
      i. FEAR will be adjusted (F: 20, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	20	18	15	12	10	8	5	2	0

      ii. SPOIL will be adjusted (F: 0, S: -20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	-2	-5	-8	-10	-12	-15	-18	-20

      iii. STRESS will be adjusted (F: 0, S: 20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	2	5	8	10	12	15	18	20

      iv. If FATIGUE > 80, then NATURE ADJUSTMENT is decreased by 66.

(4) Lack of Motivation?
   a. Inputs into this determination are NATURE, STRESS, SPOIL, MOTIVATION, and SMALL RANDOM NUMBER.
   b. Lack of motivation is determined by MOTIVATION <= "Lack of Motivation Threshold". When you are less than or equal to the threshold you proceed to "Did Monster Want Nothing?"; otherwise, you proceed to "Not Really Tired?". See end of appendix for calculation of "Lack of Motivation Threshold".

(5) Did Monster Want Nothing?

a. Inputs are Monster Main Type, ITEM GROUP SELECTION, STYLE.

b. The ITEM GROUP SELECTION will determine which group of items the monster will select from.

c. The value of STYLE will determine which item number your monster will select.

STYLE Range	**< 20**	**20 – 29**	**30 – 39**	**40 – 49**	**>= 50**
Item Number	1	2	3	4	5

d. If the item chosen is "No Desire", then the answer to "Did Monster Want Nothing" was "Yes" and you will proceed to "Cheat?"; otherwise, "No", and you will proceed to "Say 'Yes' to Monster Want?".

i. "No Desire" item will result in the following effects on your monster:

1. SPOIL will be adjusted (F: 0, S: -5)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	0	-1	-2	-2	-2	-3	-4	-4

2. STRESS will be adjusted (F: 0, S: 10)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	1	3	4	5	6	7	9	10

e. See appendix section "f" for item tables

(6) Said "Yes" to Monster want?

a. If the item wanted was an action, like play, rest, or battle (tourney), Colt will ask you about doing it for the following week with the monster, thus making a promise to do it. See section (12) for information on keeping and breaking promises.

b. If the item wanted was a physical item, Colt will ask you to purchase it for the monster and the items effects will be applied to the monster. See appendix section "g" for item cost and effects for wanted items only.

c. Saying "Yes" will result in the following effects on your monster while proceeding to "Failure?":

i. MOTIVATION will be increased by a SMALL RANDOM NUMBER affected number between 10 and 29.

ii. FEAR will be adjusted (F: -5, S: 0)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	-4	-4	-3	-2	-2	-2	-1	0	0

iii. SPOIL will be adjusted (F: 10, S: 0)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	10	9	7	6	5	4	3	1	0

d. Saying "No" will result in the following effects on your monster while proceeding to "Not Really Tired?":

i. FEAR will be adjusted (F: 0, S: 5)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	0	1	2	2	2	3	4	4

ii. SPOIL will be adjusted (F: 0, S: -10)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	-1	-3	-4	-5	-6	-7	-9	-10

iii. STRESS will be adjusted (F: 0, S: 10)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	1	3	4	5	6	7	9	10

(7) Not Really Tired?
   a. Inputs into this determination are NATURE and FATIGUE.
   b. Not Really Tired is determined by FATIGUE < "Really Tired Threshold". When you are less than the threshold you proceed to "Cheat?"; otherwise, you proceed to "Truant?". The threshold is determined by NATURE.
      i. NATURE >= 0, then "Really Tired Threshold" is 80
      ii. NATURE < 0, then "Really Tired Threshold" is 50

(8) Truant?
   a. Inputs into this determination are NATURE and FATIGUE.
   b. Truancy is determined by FATIGUE >= "Truancy Threshold". When you are greater than or equal to the threshold your drill results in "TRUANT"; otherwise, you proceed to "Cheat?". See appendix section "h" for calculation of "Truancy Threshold".
   c. "TRUANT" will result in the following effects on your monster:
      i. FATIGUE will be reduced by a Life Stage based value

Life Stage	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Value	10	11	12	13	14	14	12	10	9	9

      i. STRESS will be reduced by a Life Stage based, Small Random Number adjusted value (table below) [ERROR – See section (13)]

Life Stage	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Value	14-18	14-18	16-23	16-20	18-22	18-22	16-23	14-18	14-18	12-13

   d. For Post Drill Truancy Effects, see section (14).a

(9) Cheat?
   a. Inputs into this determination are MOTIVATION, NATURE, and SMALL RANDOM NUMBER
   b. Cheat is determined by MOTIVATION < "Cheat Threshold". When you are less than the threshold, your drill results in "CHEAT"; otherwise, you proceed to "Failure?". See appendix "I" for calculation of "Cheat Threshold".
   c. "CHEAT" will result in the following effects on your monster:
      i. Light drill
         1. FATIGUE will be added by a Small Random Number adjusted value from 1 to 5
         2. STRESS will be added by 5
         3. FORM will be reduced by 1
         4. Attribute change for chosen drill will be selected from 1 of 4 values according to following tables:

Without Bonus		**Attribute Gain**				
		1	**2**	**3**	**4**	**5**
Life Stage	**1**	1,1,1,2	1,1,1,2	1,1,2,1	1,1,2,3	1,1,2,3
	2	1,1,1,2	1,1,2,3	1,2,3,1	1,2,3,4	2,3,4,5
	3	1,1,2,3	1,1,2,3	2,3,4,2	2,3,4,5	3,4,5,6
	4	1,1,2,3	1,2,3,4	3,4,5,3	3,4,5,6	4,5,6,7
	5	1,2,3,4	2,3,4,5	4,5,6,4	4,5,6,7	6,7,8,9
	6	1,1,2,3	1,2,3,4	3,4,5,4	4,5,6,7	5,6,7,8
	7	1,1,2,3	1,2,3,4	3,4,5,3	3,4,5,6	4,5,6,7
	8	1,1,2,3	1,1,2,3	2,3,4,2	2,3,4,5	3,4,5,6
	9	1,1,1,2	1,1,2,3	1,2,3,1	1,2,3,4	2,3,4,5
	10	1,1,1,2	1,1,1,2	1,1,2,1	1,1,2,3	1,1,2,3

With Bonus		**Attribute Gain**				
		1	**2**	**3**	**4**	**5**
Life Stage	**1**	1,1,2,3	1,1,2,3	1,2,3,1	1,2,3,4	1,2,3,4
	2	1,1,2,3	1,2,3,4	2,3,4,2	2,3,4,5	3,4,5,6
	3	1,2,3,4	1,2,3,4	3,4,5,3	3,4,5,6	4,5,6,7
	4	1,2,3,4	2,3,4,5	4,5,6,4	4,5,6,7	5,6,7,8
	5	2,3,4,5	3,4,5,6	5,6,7,5	5,6,7,8	7,8,9,10
	6	1,2,3,4	2,3,4,5	4,5,6,5	5,6,7,8	6,7,8,9
	7	1,2,3,4	2,3,4,5	4,5,6,4	4,5,6,7	5,6,7,8
	8	1,2,3,4	1,2,3,4	3,4,5,3	3,4,5,6	4,5,6,7
	9	1,1,2,3	1,2,3,4	2,3,4,2	2,3,4,5	3,4,5,6
	10	1,1,2,3	1,1,2,3	1,2,3,1	1,2,3,4	1,2,3,4

ii. Hard drill

1. FATIGUE will be added by a Small Random Number adjusted value from 10 to 14 [ERROR – See section (13)]
2. STRESS will be added by 12
3. FORM will be reduced by 2
4. Attribute change for chosen drill will be selected from 1 of 4 values according to following tables. Note that position within the cell stays consistent for selection of all changes (ERROR: There is a well-known error that the Swim drill has the Primary and Secondary Attribute Gain reversed):

Without Bonus		Primary Attribute Gain				
		1	2	3	4	5
Life Stage	1	3,3,3,3	3,3,3,3	3,3,3,3	3,3,3,4	3,3,4,5
	2	3,3,3,3	3,3,3,4	3,4,5,3	3,4,5,6	4,5,6,7
	3	3,3,3,4	3,3,4,5	4,5,6,5	5,6,7,8	6,7,8,9
	4	3,3,3,4	3,4,5,6	5,6,7,6	6,7,8,9	8,9,10,11
	5	3,3,4,5	4,5,6,7	7,8,9,8	8,9,10,11	11,12,13,14
	6	3,3,4,5	4,5,6,7	6,7,8,8	8,9,10,11	10,11,12,13
	7	3,3,3,4	3,4,5,6	5,6,7,6	6,7,8,9	8,9,10,11
	8	3,3,3,4	3,3,4,5	4,5,6,5	5,6,7,8	6,7,8,9
	9	3,3,3,3	3,3,3,4	3,4,5,3	3,4,5,6	4,5,6,7
	10	3,3,3,3	3,3,3,3	3,3,3,3	3,3,3,4	3,3,4,5

With Bonus		Primary Attribute Gain				
		1	2	3	4	5
Life Stage	1	3,3,3,3	3,3,3,4	3,3,4,3	3,3,4,5	3,4,5,6
	2	3,3,3,4	3,3,4,5	4,5,6,4	4,5,6,7	5,6,7,8
	3	3,3,4,5	3,4,5,6	5,6,7,6	6,7,8,9	7,8,9,10
	4	3,3,4,5	4,5,6,7	6,7,8,7	7,8,9,10	9,10,11,12
	5	3,4,5,6	5,6,7,8	8,9,10,9	9,10,11,12	12,13,14,15
	6	3,4,5,6	5,6,7,8	7,8,9,9	9,10,11,12	11,12,13,14
	7	3,3,4,5	4,5,6,7	6,7,8,7	7,8,9,10	9,10,11,12
	8	3,3,4,5	3,4,5,6	5,6,7,6	6,7,8,9	7,8,9,10
	9	3,3,3,4	3,3,4,5	4,5,6,4	4,5,6,7	5,6,7,8
	10	3,3,3,3	3,3,3,4	3,3,4,3	3,3,4,5	3,4,5,6

Without Bonus		Secondary Attribute Gain				
		1	2	3	4	5
Life Stage	1	2,2,2,2	2,2,2,2	2,2,2,2	2,2,2,2	2,2,2,2
	2	2,2,2,2	2,2,2,2	2,2,2,2	2,2,3,2	2,2,3,2
	3	2,2,2,2	2,2,2,2	2,3,2,2	2,2,3,2	2,3,4,2
	4	2,2,2,2	2,2,2,2	2,3,2,2	2,3,4,2	2,3,4,2
	5	2,2,2,2	2,2,3,2	3,4,2,3	3,4,5,2	3,4,5,2
	6	2,2,2,2	2,2,3,2	2,3,2,2	2,3,4,2	3,4,5,2
	7	2,2,2,2	2,2,2,2	2,3,2,2	2,3,4,2	2,3,4,2
	8	2,2,2,2	2,2,2,2	2,3,2,2	2,2,3,2	2,3,4,2
	9	2,2,2,2	2,2,2,2	2,2,2,2	2,2,3,2	2,2,3,2
	10	2,2,2,2	2,2,2,2	2,2,2,2	2,2,2,2	2,2,2,2

With Bonus		Secondary Attribute Gain				
		1	2	3	4	5
Life Stage	1	2,2,2,2	2,2,2,2	2,3,2,2	2,2,3,2	2,2,3,2
	2	2,2,2,2	2,2,3,2	2,3,2,2	2,3,4,2	2,3,4,2
	3	2,2,3,2	2,2,3,2	3,4,2,2	2,3,4,2	3,4,5,2
	4	2,2,3,2	2,2,3,2	3,4,2,3	3,4,5,2	3,4,5,2
	5	2,2,3,2	2,3,4,2	4,5,2,4	4,5,6,3	4,5,6,3
	6	2,2,3,2	2,3,4,2	3,4,2,3	3,4,5,2	4,5,6,3
	7	2,2,3,2	2,2,3,2	3,4,2,3	3,4,5,2	3,4,5,2
	8	2,2,3,2	2,2,3,2	3,4,2,2	2,3,4,2	3,4,5,2
	9	2,2,2,2	2,2,3,2	2,3,2,2	2,3,4,2	2,3,4,2
	10	2,2,2,2	2,2,2,2	2,3,2,2	2,2,3,2	2,2,3,2

No Bonus		Tertiary Attribute Gain
		1-5
Life Stage	1-10	-3,-4,-1,-2

d. For Post Drill Cheat Effects, see section (14).b
e. Process the effects of a Monster stored ITEM, like Troron or Paradoxine

(10) Failure?

a. Inputs into this determination are FATIGUE, FEAR, ATTRIBUTE GAIN, LIFE STAGE, SMALL RANDOM NUMBER, and DRILL LEVEL (see appendix section b.xiv)
b. Failure is determined by FATIGUE > "Failure Threshold" [ERROR – See section (13)]. When you are greater than the threshold, your drill results in "FAILURE"; otherwise, you proceed to "Great?". See appendix "j" for calculation of "Failure Threshold".
c. "FAILURE" will result in the following effects on your monster:
   i. Light drill
      1. FATIGUE will be added by 10
      2. STRESS will be added by 5
   iii. Hard drill
      1. FATIGUE will be added by 15
      2. STRESS will be added by 12
d. For Post Drill Failure Effects, see section (14).c

(11)Great?

a. Inputs into this determination are MOTIVATION, NATURE, and SMALL RANDOM NUMBER
b. Great is determined by MOTIVATION > "Great Threshold". When you are greater than the threshold, your drill results in "GREAT"; otherwise, you proceed to "SUCCESS". See appendix "k" for calculation of "Great Threshold".
c. "GREAT" will result in the following effects on your monster:
   i. Light drill
      1. FATIGUE will be added by a Small Random Number adjusted value from 5 to 9
      2. STRESS will be added by 5
      3. FORM will be reduced by 1
      4. Attribute change for chosen drill will be selected from 1 of 5 values according to following tables:

Without Bonus		Attribute Gain				
		1	2	3	4	5
Life Stage	1	2,4,6,8,10	2,4,6,8,10	3,5,7,9,11	4,6,8,10,12	5,7,9,11,13
	2	3,5,7,9,11	4,6,8,10,12	5,7,9,11,13	6,8,10,12,14	8,10,12,14,15
	3	4,6,8,10,12	5,7,9,11,13	7,9,11,13,15	9,11,13,15,15	11,13,15,15,15
	4	4,6,8,10,12	6,8,10,12,14	8,10,12,14,15	10,12,14,15,15	13,15,15,15,15
	5	6,8,10,12,14	8,10,12,14,15	10,12,14,15,15	13,15,15,15,15	15,15,15,15,15
	6	5,7,9,11,13	7,9,11,13,15	9,11,13,15,15	12,14,15,15,15	15,15,15,15,15
	7	4,6,8,10,12	6,8,10,12,14	8,10,12,14,15	10,12,14,15,15	13,15,15,15,15
	8	4,6,8,10,12	5,7,9,11,13	7,9,11,13,15	9,11,13,15,15	11,13,15,15,15
	9	3,5,7,9,11	4,6,8,10,12	5,7,9,11,13	6,8,10,12,14	8,10,12,14,15
	10	2,4,6,8,10	2,4,6,8,10	3,5,7,9,11	4,6,8,10,12	5,7,9,11,13

With Bonus		Attribute Gain				
		1	2	3	4	5
Life Stage	1	3,5,7,9,11	3,5,7,9,11	4,6,8,10,12	5,7,9,11,13	6,8,10,12,14
	2	4,6,8,10,12	5,7,9,11,13	6,8,10,12,14	7,9,11,13,15	9,11,13,15,15
	3	5,7,9,11,13	6,8,10,12,14	8,10,12,14,15	10,12,14,15,15	12,14,15,15,15
	4	5,7,9,11,13	7,9,11,13,15	9,11,13,15,15	11,13,15,15,15	14,15,15,15,15
	5	7,9,11,13,15	9,11,13,15,15	11,13,15,15,15	14,15,15,15,15	15,15,15,15,15
	6	6,8,10,12,14	8,10,12,14,15	10,12,14,15,15	13,15,15,15,15	15,15,15,15,15
	7	5,7,9,11,13	7,9,11,13,15	9,11,13,15,15	11,13,15,15,15	14,15,15,15,15
	8	5,7,9,11,13	6,8,10,12,14	8,10,12,14,15	10,12,14,15,15	12,14,15,15,15
	9	4,6,8,10,12	5,7,9,11,13	6,8,10,12,14	7,9,11,13,15	9,11,13,15,15
	10	3,5,7,9,11	3,5,7,9,11	4,6,8,10,12	5,7,9,11,13	6,8,10,12,14

   ii. Hard drill
      1. FATIGUE will be added by a Small Random Number adjusted value from 10 to 14
      2. STRESS will be added by 12
      3. FORM will be reduced by 2
      4. Attribute change for chosen drill will be selected from 1 of 4 values according to following tables. Either Value within each parenthesis can apply, but position of parentheses selection stays consistent through selection of all changes. (ERROR: Swim Drill Gain Reversal Error):

Without Bonus		Primary Attribute Gain				
		1	2	3	4	5
Life Stage	1	(4,8),(6,10)	(5,9),(7,11)	(6,10),(8,12)	(8,12),(10,14)	(9,13),(11,15)
	2	(5,9),(7,11)	(7,11),(9,13)	(9,13),(11,15)	(11,15),(13,17)	(14,18),(16,20)
	3	(7,11),(9,13)	(9,13),(11,15)	(12,16),(14,18)	(15,19),(17,20)	(18,20),(20,20)
	4	(8,12),(10,14)	(11,15),(13,17)	(14,18),(16,20)	(18,20),(20,20)	(20,20),(20,20)
	5	(10,14),(12,16)	(14,18),(16,20)	(17,20),(19,20)	(20,20),(20,20)	(20,20),(20,20)

	6	(9,13),(11,15)	(13,17),(15,19)	(16,20),(18,20)	(20,20),(20,20)	(20,20),(20,20)
	7	(8,12),(10,14)	(11,15),(13,17)	(14,18),(16,20)	(18,20),(20,20)	(20,20),(20,20)
	8	(7,11),(9,13)	(9,13),(11,15)	(12,16),(14,18)	(15,19),(17,20)	(18,20),(20,20)
	9	(5,9),(7,11)	(7,11),(9,13)	(9,13),(11,15)	(11,15),(13,17)	(14,18),(16,20)
	10	(4,8),(6,10)	(5,9),(7,11)	(6,10),(8,12)	(8,12),(10,14)	(9,13),(11,15)

With Bonus		**Primary Attribute Gain**				
		1	**2**	**3**	**4**	**5**
Life Stage	**1**	(5,9),(7,11)	(6,10),(8,12)	(7,11),(9,13)	(9,13),(11,15)	(10,14),(12,16)
	2	(6,10),(8,12)	(8,12),(10,14)	(10,14),(12,16)	(12,16),(14,18)	(15,19),(17,20)
	3	(8,12),(10,14)	(10,14),(12,16)	(13,17),(15,19)	(16,20),(18,20)	(19,20),(20,20)
	4	(9,13),(11,15)	(12,16),(14,18)	(15,19),(17,20)	(19,20),(20,20)	(20,20),(20,20)
	5	(11,15),(13,17)	(15,19),(17,20)	(18,20),(20,20)	(20,20),(20,20)	(20,20),(20,20)
	6	(10,14),(12,16)	(14,18),(16,20)	(17,20),(19,20)	(20,20),(20,20)	(20,20),(20,20)
	7	(9,13),(11,15)	(12,16),(14,18)	(15,19),(17,20)	(19,20),(20,20)	(20,20),(20,20)
	8	(8,12),(10,14)	(10,14),(12,16)	(13,17),(15,19)	(16,20),(18,20)	(19,20),(20,20)
	9	(6,10),(8,12)	(8,12),(10,14)	(10,14),(12,16)	(12,16),(14,18)	(15,19),(17,20)
	10	(5,9),(7,11)	(6,10),(8,12)	(7,11),(9,13)	(9,13),(11,15)	(10,14),(12,16)

Without Bonus		**Secondary Attribute Gain**				
		1	**2**	**3**	**4**	**5**
Life Stage	**1**	(2,2),(2,2)	(2,2),(2,2)	(2,3),(2,2)	(2,3),(2,2)	(2,4),(2,3)
	2	(2,2),(2,2)	(2,3),(2,2)	(2,4),(2,3)	(3,5),(2,4)	(3,5),(2,4)
	3	(2,3),(2,2)	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(5,7),(4,6)
	4	(2,3),(2,2)	(2,4),(2,3)	(4,6),(3,5)	(5,7),(4,6)	(6,8),(5,7)
	5	(2,4),(2,3)	(3,5),(2,4)	(5,7),(4,6)	(7,9),(6,8)	(8,10),(7,9)
	6	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(6,8),(5,7)	(8,10),(7,9)
	7	(2,3),(2,2)	(2,4),(2,3)	(4,6),(3,5)	(5,7),(4,6)	(6,8),(5,7)
	8	(2,3),(2,2)	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(5,7),(4,6)
	9	(2,2),(2,2)	(2,3),(2,2)	(2,4),(2,3)	(3,5),(2,4)	(3,5),(2,4)
	10	(2,2),(2,2)	(2,2),(2,2)	(2,3),(2,2)	(2,3),(2,2)	(2,4),(2,3)

With Bonus		**Secondary Attribute Gain**				
		1	**2**	**3**	**4**	**5**
Life Stage	**1**	(2,3),(2,2)	(2,3),(2,2)	(2,4),(2,3)	(2,4),(2,3)	(3,5),(2,4)
	2	(2,3),(2,2)	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(4,6),(3,5)
	3	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(5,7),(4,6)	(6,8),(5,7)
	4	(2,4),(2,3)	(3,5),(2,4)	(5,7),(4,6)	(6,8),(5,7)	(7,9),(6,8)
	5	(3,5),(2,4)	(4,6),(3,5)	(6,8),(5,7)	(8,10),(7,9)	(9,10),(8,10)
	6	(3,5),(2,4)	(4,6),(3,5)	(5,7),(4,6)	(7,9),(6,8)	(9,10),(8,10)
	7	(2,4),(2,3)	(3,5),(2,4)	(5,7),(4,6)	(6,8),(5,7)	(7,9),(6,8)
	8	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(5,7),(4,6)	(6,8),(5,7)
	9	(2,3),(2,2)	(2,4),(2,3)	(3,5),(2,4)	(4,6),(3,5)	(4,6),(3,5)
	10	(2,3),(2,2)	(2,3),(2,2)	(2,4),(2,3)	(2,4),(2,3)	(3,5),(2,4)

No Bonus		**Tertiary Attribute Gain**
		1-5
Life Stage	**1-10**	(-2),(-3)

iii. For Post Drill Great Effects, see section (14).c

iv. Process the effects of a Monster stored ITEM, like Troron or Paradoxine

d. "SUCCESS" will result in the following effects on your monster:

i. Light drill

1. FATIGUE will be 10
2. STRESS will be added by 5
3. FORM will be reduced by 1
4. Attribute change for chosen drill will be selected from 1 of 4 values according to following tables:

Without Bonus		Attribute Gain				
		1	2	3	4	5
Life Stage	1	1,1,2,3	1,1,2,3	1,2,3,4	2,3,4,5	3,4,5,6
	2	1,2,3,4	2,3,4,5	3,4,5,6	4,5,6,7	6,7,8,9
	3	2,3,4,5	3,4,5,6	5,6,7,8	7,8,9,10	9,10,11,12
	4	2,3,4,5	4,5,6,7	6,7,8,9	8,9,10,11	11,12,13,14
	5	4,5,6,7	6,7,8,9	8,9,10,11	11,12,13,14	14,15,15,15
	6	3,4,5,6	5,6,7,8	7,8,9,10	10,11,12,13	13,14,15,15
	7	2,3,4,5	4,5,6,7	6,7,8,9	8,9,10,11	11,12,13,14
	8	2,3,4,5	3,4,5,6	5,6,7,8	7,8,9,10	9,10,11,12
	9	1,2,3,4	2,3,4,5	3,4,5,6	4,5,6,7	6,7,8,9
	10	1,1,2,3	1,1,2,3	1,2,3,4	2,3,4,5	3,4,5,6

With Bonus		Attribute Gain				
		1	2	3	4	5
Life Stage	1	1,2,3,4	1,2,3,4	2,3,4,5	3,4,5,6	4,5,6,7
	2	2,3,4,5	3,4,5,6	4,5,6,7	5,6,7,8	7,8,9,10
	3	3,4,5,6	4,5,6,7	6,7,8,9	8,9,10,11	10,11,12,13
	4	3,4,5,6	5,6,7,8	7,8,9,10	9,10,11,12	12,13,14,15
	5	5,6,7,8	7,8,9,10	9,10,11,12	12,13,14,15	15,15,15,15
	6	4,5,6,7	6,7,8,9	8,9,10,11	11,12,13,14	14,15,15,15
	7	3,4,5,6	5,6,7,8	7,8,9,10	9,10,11,12	12,13,14,15
	8	3,4,5,6	4,5,6,7	6,7,8,9	8,9,10,11	10,11,12,13
	9	2,3,4,5	3,4,5,6	4,5,6,7	5,6,7,8	7,8,9,10
	10	1,2,3,4	1,2,3,4	2,3,4,5	3,4,5,6	4,5,6,7

ii. Hard drill

1. FATIGUE will be added 15
2. STRESS will be added by 12
3. FORM will be reduced by 2
4. Attribute change for chosen drill will be selected from 1 of 4 values according to following tables. Note that position within the cell stays consistent for selection of all changes (ERROR: There is a well-known error that the Swim drill has the Primary and Secondary Attribute Gain reversed):

Without Bonus		Primary Attribute Gain				
		1	2	3	4	5
Life Stage	1	3,3,3,4	3,3,4,5	3,4,5,6	5,6,7,8	6,7,8,9
	2	3,3,4,5	4,5,6,7	6,7,8,9	8,9,10,11	11,12,13,14
	3	4,5,6,7	6,7,8,9	9,10,11,12	12,13,14,15	15,16,17,18
	4	5,6,7,8	8,9,10,11	11,12,13,14	15,16,17,18	19,20,20,20
	5	7,8,9,10	11,12,13,14	14,15,16,17	19,20,20,20	20,20,20,20
	6	6,7,8,9	10,11,12,13	13,14,15,16	18,19,20,20	20,20,20,20
	7	5,6,7,8	8,9,10,11	11,12,13,14	15,16,17,18	19,20,20,20
	8	4,5,6,7	6,7,8,9	9,10,11,12	12,13,14,15	15,16,17,18
	9	3,3,4,5	4,5,6,7	6,7,8,9	8,9,10,11	11,12,13,14
	10	3,3,3,4	3,3,4,5	3,4,5,6	5,6,7,8	6,7,8,9

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With Bonus		Primary Attribute Gain				
		1	2	3	4	5
Life Stage	1	3,3,4,5	3,4,5,6	4,5,6,7	6,7,8,9	7,8,9,10
	2	3,4,5,6	5,6,7,8	7,8,9,10	9,10,11,12	12,13,14,15
	3	5,6,7,8	7,8,9,10	10,11,12,13	13,14,15,16	16,17,18,19
	4	6,7,8,9	9,10,11,12	12,13,14,15	16,17,18,19	20,20,20,20
	5	8,9,10,11	12,13,14,15	15,16,17,18	20,20,20,20	20,20,20,20
	6	7,8,9,10	11,12,13,14	14,15,16,17	19,20,20,20	20,20,20,20
	7	6,7,8,9	9,10,11,12	12,13,14,15	16,17,18,19	20,20,20,20
	8	5,6,7,8	7,8,9,10	10,11,12,13	13,14,15,16	16,17,18,19
	9	3,4,5,6	5,6,7,8	7,8,9,10	9,10,11,12	12,13,14,15
	10	3,3,4,5	3,4,5,6	4,5,6,7	6,7,8,9	7,8,9,10

Without Bonus		Secondary Attribute Gain				
		1	2	3	4	5
Life Stage	1	2,2,2,2	2,2,2,2	2,2,3,2	2,2,3,2	2,3,4,2
	2	2,2,2,2	2,2,3,2	2,3,4,2	3,4,5,2	3,4,5,2
	3	2,2,3,2	2,3,4,2	3,4,5,2	4,5,6,3	5,6,7,4
	4	2,2,3,2	2,3,4,2	4,5,6,3	5,6,7,4	6,7,8,5
	5	2,3,4,2	3,4,5,2	5,6,7,4	7,8,9,6	8,9,10,7
	6	2,3,4,2	3,4,5,2	4,5,6,3	6,7,8,5	8,9,10,7
	7	2,2,3,2	2,3,4,2	4,5,6,3	5,6,7,4	6,7,8,5
	8	2,2,3,2	2,3,4,2	3,4,5,2	4,5,6,3	5,6,7,4
	9	2,2,2,2	2,2,3,2	2,3,4,2	3,4,5,2	3,4,5,2
	10	2,2,2,2	2,2,2,2	2,2,3,2	2,2,3,2	2,3,4,2

With Bonus		Secondary Attribute Gain				
		1	2	3	4	5
Life Stage	1	2,2,3,2	2,2,3,2	2,3,4,2	2,3,4,2	3,4,5,2
	2	2,2,3,2	2,3,4,2	3,4,5,2	4,5,6,3	4,5,6,3
	3	2,3,4,2	3,4,5,2	4,5,6,3	5,6,7,4	6,7,8,5
	4	2,3,4,2	3,4,5,2	5,6,7,4	6,7,8,5	7,8,9,6
	5	3,4,5,2	4,5,6,3	6,7,8,5	8,9,10,7	9,10,10,8
	6	3,4,5,2	4,5,6,3	5,6,7,4	7,8,9,6	9,10,10,8
	7	2,3,4,2	3,4,5,2	5,6,7,4	6,7,8,5	7,8,9,6
	8	2,3,4,2	3,4,5,2	4,5,6,3	5,6,7,4	6,7,8,5
	9	2,2,3,2	2,3,4,2	3,4,5,2	4,5,6,3	4,5,6,3
	10	2,2,3,2	2,2,3,2	2,3,4,2	2,3,4,2	3,4,5,2

No Bonus		Tertiary Attribute Gain
		1-5
Life Stage	1-10	-2,-3,-2,-3

iii. Process the effects of a Monster stored ITEM, like Troron or Paradoxine

(12) Keeping and Breaking Promises

a. At the end of the next week, your promises will be processed to determine if you kept them or not. Promises made are rest, tourney (battle), or play.

i. Kept promise for rest will result in the following effects:

1. NATURE ADJUSTMENT is increased by 66
2. STRESS will be reduced by a life stage based small random number affected value

Life Stage	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Value	2-4	2-4	2-5	3-5	4-6	4-6	2-5	2-4	2-4	2-3

ii. Kept promise for battle will result in the following effect:

1. NATURE ADJUSTMENT is increased by 66

iii. Kept promise for play will result in the following effects:

1. NATURE ADJUSTMENT is increased by 66
2. FATIGUE will be reduced by a life stage based small random number affected value

Life Stage	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Value	18-19	19-21	20-23	21-25	22-27	22-27	20-23	16-19	16-18	16-17

3. STRESS will be reduced by a life stage based small random number affected value

Life Stage	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Value	10-16	10-16	10-20	14-20	18-24	18-24	10-20	10-16	10-16	10-12

iv. All broken promises result in the following effects:

1. FEAR will be adjusted (F: -10, S: -20)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	-10	-11	-13	-14	-15	-16	-17	-19	-20

2. SPOIL will be adjusted (F: -10, S: -20)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	-10	-11	-13	-14	-15	-16	-17	-19	-20

3. STRESS will be adjusted (F: 10, S: 30)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	10	12	15	18	20	22	25	28	30

4. NATURE ADJUSTMENT is decreased by 66

(13) ERROR – This section is for noting potential errors in implementation in the game

a. TRUANT effects calculations

i. STRESS added back the max for the random effect, and at the wrong point. It looks like someone came in later to make a larger stress reduction and instead of modifying the calibrations, they ended up perverting the results by modifying the code. This is what it probably should have been.

Life Stage	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Value	10-16	10-16	10-19	13-19	16-22	16-22	10-19	10-16	10-16	10-13

b. CHEAT effects

i. Hard drill fatigue is inconsistent with the light drill cheat and relation to great fatigue reduction. This should have been 6 to 10 fatigue reduction.

c. FAILURE threshold calculation

i. Light Drill

1. In the light drill threshold calculation, the attribute gain stored next to it is used instead of 1 being added to the stored value for use. Note: this will result in defense drill always using gain of 0.
   a. Threshold should have been: drill level base + fear + 10 x (Gain + 1) + 20 x (LS + 1) + SRN[1] % 30

ii. Hard Drill

1. In the hard drill threshold calculation, the calibrations that were stored to get the attribute gains for the drill were the values for attribute value order, instead of attribute gain order. Instead of fixing the calibrations, someone came in and modified the code and perverted the formula. It seems like they may have removed life stage from the calculation, but maybe this was not supposed to be here since it was a hard drill. Instead of life stage they obtained the direct drill gain which for any hard drill will return 0. In addition, they utilized the attribute value order and referenced values within the code that were other random calibrations instead of the actual gains. In the end, the calculation of the threshold ended up being dependent on fear only and SRN because everything else was constant.
   a. The threshold should have been one of the following 3 calculations
      i. Reflecting on how light drill was implemented: drill level base + fear + 10 x ((2 x (prim gn+1) + (sec gn+1))/3) + 20 x (LS + 1) + SRN[1] % 30, but this really doesn't make the hard drill harder to do.
      ii. Reflecting on how this should be more difficult than light drills without life stage affecting it: drill level base + fear + 20 x ((2 x (prim gn+1) + (sec gn+1))/3) + SRN[1] % 30, but this doesn't make sense since life stage really should improve my capability.
      iii. Reflecting on how it should be more difficult than light drill, but similar: (drill level base – 10) + fear + 10 x ((2 x (prim gn+1) + (sec gn+1))/3) + 20 x (LS + 1) + SRN[1] % 30, this is the most likely candidate, but need to figure out what a good constant offset would be. Would have made better sense to use different drill level thresholds, but the code accesses the same ones for light and hard drills. For each 10 decrease in drill level base would increase failure rate by 6 2/3%.

(14) Post Drill Effects

a. TRUANT

i. If you are TRUANT, after the drill Colt will ask you if you want to scold the monster

1. If "Yes" and you scold it

a. If FATIGUE > (75 + (NATURE / 4)) (division rounded towards 0 - i.e. -0.5 -> 0), the monster will be "angry" and act as such; otherwise it will be "sorry" and act accordingly.

b. If NATURE >= 0,

i. FEAR will be adjusted (F: 20, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	20	18	15	12	10	8	5	2	0

ii. SPOIL will be adjusted (F: 0, S: -20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	-2	-5	-8	-10	-12	-15	-18	-20

iii. STRESS will be adjusted (F: 0, S: 8)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	1	2	4	4	4	6	7	8

c. If NATURE < 0,

i. FEAR will be adjusted (F: 10, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	10	9	7	6	5	4	3	1	0

ii. SPOIL will be adjusted (F: 0, S: -10)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	-1	-3	-4	-5	-6	-7	-9	-10

iii. STRESS will be adjusted (F: 0, S: 16)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	2	4	7	8	9	12	14	16

d. If STRESS < 80, NATURE ADJUSTMENT is increased by 66; otherwise, decreased by 66

2. If "No" and you don't scold it

a. The monster will be relieved and act accordingly

b. If NATURE >= 0,

i. FEAR will be adjusted (F: -10, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-10	-9	-7	-6	-5	-4	-3	-1	0

ii. SPOIL will be adjusted (F: 0, S: 5)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	0	1	2	2	2	3	4	4

c. If NATURE < 0, (See end of appendix for exact fear, spoil and stress calculations)

i. FEAR will be adjusted (F: -20, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-20	-18	-15	-12	-10	-8	-5	-2	0

ii. SPOIL will be adjusted (F: 0, S: 10)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	1	3	4	5	6	7	9	10

d. NATURE ADJUSTMENT is decreased by 66

b. CHEAT
   i. If you are CHEAT, after the drill Colt will ask you if you want to scold the monster
      1. If "Yes" and you scold it
         a. If STRESS > (50 + (NATURE / 2)) (division rounded towards 0 - i.e. -0.5 -> 0), the monster will be "very unwilling" and act as such; otherwise it will be "sorry" and will act accordingly.
         b. If NATURE >= 0
            i. SPOIL will be adjusted (F: -6, S: -20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-6	-8	-10	-12	-13	-14	-16	-18	-20

            ii. STRESS will be adjusted (F: 0, S: 8)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	1	2	4	4	4	6	7	8

         c. If NATURE < 0
            i. SPOIL will be adjusted (F: -3, S: -10)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-3	-4	-5	-6	-6	-6	-7	-8	-9

            ii. STRESS will be adjusted (F: 0, S: 24)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	3	6	10	12	14	18	21	24

         d. If STRESS < 80, NATURE ADJUSTMENT is increased by 66; otherwise, decreased by 66
      2. If "No" and you don't scold it
         a. The monster will be relieved
         b. If NATURE >= 0,
            i. FEAR will be adjusted (F: -10, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-10	-9	-7	-6	-5	-4	-3	-1	0

            ii. SPOIL will be adjusted (F: 10, S: 20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	10	11	13	14	15	16	17	19	20

         c. If NATURE < 0, (See end of appendix for exact fear, spoil and stress calculations)
            i. FEAR will be adjusted (F: -20, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-20	-18	-15	-12	-10	-8	-5	-2	0

            ii. SPOIL will be adjusted (F: 20, S: 30)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	20	21	23	24	25	26	27	29	30

         d. NATURE ADJUSTMENT is decreased by 66

c. FAILURE
   i. If you are FAILURE, after the drill Colt will ask you if you want to scold the monster
      1. Your monster will act differently based on if FATIGUE > (75 + (NATURE / 4)) (division rounded towards 0 – i.e. -0.5 -> 0). If it was greater than, then it will act exhausted; otherwise, it will act regretful/disappointed.

2. If “Yes” and you scold it
   a. If FATIGUE > (90 + (NATURE / 10)) (division rounded towards 0 - i.e. -0.5 -> 0), the monster will be “angry” OR resistant and runaway; otherwise it will be “disappointed”.
      i. If NATURE > 0, 20% chance of resistant after meeting FATIGUE threshold
      ii. If NATURE <= 0, 50% chance of resistant after meeting FATIGUE threshold
      iii. If resistant, then monster will run away and be missing for 1 to 3 days.
   b. If NATURE >= 0
      i. FEAR will be adjusted (F: 20, S: 10)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	20	19	17	16	15	14	13	11	10

      ii. SPOIL will be adjusted (F: 0, S: -20)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	-2	-5	-8	-10	-12	-15	-18	-20

      iii. STRESS will be adjusted (F: 0, S: 4)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	1	1	2	2	2	3	3	4

   c. If NATURE < 0
      i. FEAR will be adjusted (F: 10, S: 5)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	9	9	8	7	7	7	6	5	5

      ii. SPOIL will be adjusted (F: 0, S: -10)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	1	3	4	5	6	7	9	10

      iii. STRESS will be adjusted (F: 0, S: 8)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	0	1	2	4	4	4	6	7	8

   d. If monster was told, “No” to wanting to rest when it was too tired, NATURE ADJUSTMENT is decreased by 66; otherwise, if STRESS >= 80, NATURE ADJUSTMENT is decreased by 66.
3. If “No” and you don’t scold it
   a. If FATIGUE > (90 + (NATURE / 10)) (division rounded towards 0 - i.e. -0.5 -> 0), the monster will be “relieved”; otherwise it will be “delighted”.
   b. If NATURE >= 0,
      i. FEAR will be adjusted (F: -10, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-10	-9	-7	-6	-5	-4	-3	-1	0

      ii. SPOIL will be adjusted (F: 10, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	10	9	7	6	5	4	3	1	0

   c. If NATURE < 0, (See end of appendix for exact fear, spoil and stress calculations)
      i. FEAR will be adjusted (F: -20, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	-20	-18	-15	-12	-10	-8	-5	-2	0

      ii. SPOIL will be adjusted (F: 20, S: 0)

Style	-100	-80	-50	-20	0	20	50	80	100
Value	20	18	15	12	10	8	5	2	0

d. GREAT
   i. If you are GREAT, after the drill Colt will ask you if you want to praise the monster
      1. If “Yes” and you praise it
         a. The monster will be “pleased” and act accordingly.
         b. If NATURE >= 0
            i. SPOIL will be adjusted by 6
         c. If NATURE < 0
            i. SPOIL will be adjusted by 3
         d. NATURE ADJUSTMENT is increased by 33
      2. If “No” and you don’t praise it
         a. Your monster will act differently based on if STRESS > (75 + (NATURE / 4)) (division rounded towards 0 – i.e. -0.5 -> 0). If it was greater than, then it will act exhausted; otherwise, it will act regretful/disappointed.
         b. The monster will be “disappointed”
         c. If NATURE >= 0,
            i. FEAR will be adjusted by 10
            ii. SPOIL will be adjusted (F: -12, S: -24)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	-12	-14	-15	-17	-18	-19	-21	-22	-24

            iii. STRESS will be adjusted (F: 0, S: 24)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	3	6	10	12	14	18	21	24

         d. If NATURE < 0,
            i. FEAR will be adjusted by 5
            ii. SPOIL will be adjusted (F: -6, S: -10)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	-6	-7	-7	-8	-8	-8	-9	-9	-10

            iii. STRESS will be adjusted (F: 0, S: 12)

Style	**-100**	**-80**	**-50**	**-20**	**0**	**20**	**50**	**80**	**100**
Value	0	2	3	5	6	7	9	10	12

         e. NATURE ADJUSTMENT is decreased by 66

(15)Appendix for those that want the low level details and percentages

a. Functions and Operations – this section explains some mathematical operations that are used during the appendix for calculations.
   i. % - this will be the modulo function, which calculates the remainder of a division operation
   ii. All division calculations are rounded down to the nearest integer, so 0.5 goes to 0, while -0.5 goes to -1. There are some cases that will be noted when this is not the case and all rounding is toward 0.

b. Name, Addresses, and any additional technical information about the parameter
   i. ITEM GROUP SELECTION - address: 80097AFC; length 1 byte; range 0-2.
   ii. MOTIVATION – address: 80097AF0-AF9; length: 1 byte for each drill; range: 0-100. Order of bytes is Domino, Study, Run, Shoot, Dodge, Endure, Pull, Mediate, Leap, Swim.
      1. Calculation: TBA
   iii. FATIGUE -> address: 80097A37; length: 1 byte; range 0-100.
   iv. STRESS -> address: 80097A3B; length: 1 byte; range 0-100.
   v. SPOIL -> address: 80097A3C; length: 1 byte; range 0-100.
   vi. FEAR -> address: 80097A3D; length: 1 byte; range 0-100.
   vii. LOYALTY -> address: 80097A36; length: 1 byte; range 0-100.
      1. LOYALTY = SPOIL/2 + FEAR/2
         a. 99 spoil, 99 fear = 49 + 49 = 98 loyalty
   viii. NATURE -> calculation, range -100-100, BASE NATURE + NATURE ADJUSTMENT (see nature adjustment for value details)
   ix. BASE NATURE -> address; 80097A59; length: 1 byte; range -100-100. It cannot be changed.
   x. NATURE ADJUSTMENT -> address: 80097A34; length: 2 byte; range -1024-1024. This value represents an angle from -90 degrees to 90 degrees. The sine of this angle times 100 is the nature adjustment value. It can be changed by decisions and items throughout the game.
   xi. LIFE STAGE -> address: 80097B93; 1 byte; range 0-9. For display purposes, Life Stage will be used as a 1-10 value, but for calculations it will use the stored range.
   xii. ATTRIBUTE GAIN -> 80097A40-45; 1 byte each; range: 0-4. Attribute gain order is Power, Intelligence, Life, Skill, Speed, Defense. Attribute gains for all display purposes will be used as 1-5, but for calculations it will use the stored range.
   xiii. SMALL RANDOM NUMBER (SRN) -> address: 8007B88C; 1 byte; range: 0-255; SRN is a calculation that acts like a random number, but the next value is predictable based on its current value. The calculation is cyclical, such that it will go through the entire range before repeating itself, although it will not go through it in numerical order. When talking about SRN in calculations, a bracket will be used after it to indicate if the next value was retrieved or the same value was used again (i.e. SRN[1] and SRN[2] are different numbers retrieved back to back, while SRN[1] and SRN[1] are the same number in the calculation.) From section to section though, the SRN values do not equal each other if they share the same bracket. SRN[0] is the currently stored value at the beginning of a section.
      1. SRN[n + 1] = (5 x SRN[n] + 1) % 256
   xiv. DRILL LEVEL -> address: 80097A4C-55; 1 bye each drill; range 0-2. For display purposes, drill level will be used as 1-3. The level of a drill is updated after completion and it is based on the attribute value that the drill affects. Once a drill level has been updated to the next level, it will not go back down. For hard drills, the attribute value is ((2 x primary attribute value + secondary attribute value) /3).
      1. Starting -> Level 1 (★), >= 300 -> Level 2 (★★), >= 700 -> Level 3 (★★★)
      2.

c. "Too Tired Threshold" calculation.

i. Inputs into this calculation are LIFE STAGE, NATURE, SMALL RANDOM NUMBER

ii. The base threshold is based on LIFE STAGE. See table below.

Lifestage (LS)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Base Threshold	100	104	108	112	116	116	108	104	100	92

iii. The threshold calculation is as follows:

1. NATURE >= 0, Thd = LS Base - (SRN[1] % 8) - (SRN[2] % ((200 + NATURE) / 5))
2. NATURE < 0, Thd = LS Base - (SRN[1] % 8) - (2 x NATURE / 5) - (SRN[2] % (20 - (2 x NATURE / 5)))
3. There are multiple tables below, one for each Life Stage and Nature side displaying percent chance of being too tired.

Life Stage		**Fatigue**							
1 or 9		**73**	**77**	**81**	**85**	**89**	**93**	**97**	**100**
Nature	**-100**	0%	2%	8%	14%	20%	27%	33%	36%
	-80	0%	2%	9%	16%	24%	32%	39%	43%
	-60	0%	3%	10%	18%	27%	37%	46%	51%
	-40	0%	4%	14%	25%	36%	46%	57%	63%
	-20	0%	5%	18%	32%	46%	60%	74%	81%
	-1	0%	5%	21%	40%	59%	78%	94%	100%

Life Stage		**Fatigue**											
1 or 9		**34**	**38**	**42**	**46**	**50**	**54**	**58**	**62**	**70**	**78**	**86**	**94**	**99**
Nature	**0**	0%	0%	0%	0%	0%	0%	5%	12%	30%	49%	70%	92%	100%
	20	0%	0%	0%	0%	0%	3%	10%	18%	37%	55%	74%	93%	100%
	40	0%	0%	0%	0%	4%	10%	18%	25%	41%	57%	74%	93%	100%
	60	0%	0%	0%	2%	9%	16%	24%	32%	47%	63%	79%	94%	100%
	80	0%	0%	3%	8%	14%	20%	27%	33%	47%	63%	79%	94%	100%
	100	0%	2%	8%	14%	20%	27%	33%	39%	52%	64%	79%	94%	100%

Life Stage		**Fatigue**					
2 or 8		**81**	**85**	**89**	**93**	**97**	**100**
Nature	**-100**	2%	8%	14%	20%	27%	30%
	-80	2%	9%	16%	24%	32%	36%
	-60	3%	10%	18%	27%	37%	41%
	-40	4%	14%	25%	36%	46%	52%
	-20	5%	18%	32%	46%	60%	67%
	-1	5%	21%	40%	59%	78%	91%

Life Stage		**Fatigue**										
2 or 8		**38**	**42**	**46**	**50**	**54**	**58**	**62**	**70**	**78**	**86**	**94**	**99**
Nature	**0**	0%	0%	0%	0%	0%	0%	5%	21%	40%	59%	81%	95%
	20	0%	0%	0%	0%	0%	3%	10%	27%	46%	65%	84%	96%
	40	0%	0%	0%	0%	4%	10%	18%	33%	49%	65%	84%	95%
	60	0%	0%	0%	2%	9%	16%	24%	39%	55%	71%	86%	97%
	80	0%	0%	3%	8%	14%	20%	27%	40%	55%	71%	86%	96%
	100	0%	2%	8%	14%	20%	27%	33%	45%	58%	71%	86%	97%

Monster Rancher 2 Drill Processing

Life Stage		Fatigue					
3 or 7		**81**	**85**	**89**	**93**	**97**	**100**
Nature	**-100**	0%	2%	8%	14%	20%	23%
	-80	0%	2%	9%	16%	24%	28%
	-60	0%	3%	10%	18%	27%	32%
	-40	0%	4%	14%	25%	36%	41%
	-20	0%	5%	18%	32%	46%	53%
	-1	0%	5%	21%	40%	59%	73%

Life Stage		Fatigue										
3 or 7		**42**	**46**	**50**	**54**	**58**	**62**	**70**	**78**	**86**	**94**	**99**
Nature	**0**	0%	0%	0%	0%	0%	0%	12%	30%	49%	70%	86%
	20	0%	0%	0%	0%	0%	3%	18%	37%	55%	74%	88%
	40	0%	0%	0%	0%	4%	10%	25%	41%	57%	74%	88%
	60	0%	0%	0%	2%	9%	16%	32%	47%	63%	79%	90%
	80	0%	0%	3%	8%	14%	20%	33%	47%	63%	79%	90%
	100	0%	2%	8%	14%	20%	27%	39%	52%	64%	79%	90%

Life Stage		Fatigue				
4		**85**	**89**	**93**	**97**	**100**
Nature	**-100**	0%	2%	8%	14%	17%
	-80	0%	2%	9%	16%	20%
	-60	0%	3%	10%	18%	23%
	-40	0%	4%	14%	25%	30%
	-20	0%	5%	18%	32%	39%
	-1	0%	5%	21%	40%	54%

Life Stage		Fatigue									
4		**46**	**50**	**54**	**58**	**62**	**70**	**78**	**86**	**94**	**99**
Nature	**0**	0%	0%	0%	0%	0%	5%	21%	40%	59%	75%
	20	0%	0%	0%	0%	0%	10%	27%	46%	65%	79%
	40	0%	0%	0%	0%	4%	18%	33%	49%	65%	79%
	60	0%	0%	0%	2%	9%	24%	39%	55%	71%	82%
	80	0%	0%	3%	8%	14%	27%	40%	55%	71%	82%
	100	0%	2%	8%	14%	20%	33%	45%	58%	71%	82%

Life Stage		Fatigue			
5 or 6		**89**	**93**	**97**	**100**
Nature	**-100**	0%	2%	8%	11%
	-80	0%	2%	9%	12%
	-60	0%	3%	10%	14%
	-40	0%	4%	14%	19%
	-20	0%	5%	18%	25%
	-1	0%	5%	21%	35%

Life Stage		Fatigue								
5 or 6		**50**	**54**	**58**	**62**	**70**	**78**	**86**	**94**	**99**
Nature	**0**	0%	0%	0%	0%	0%	12%	30%	49%	64%
	20	0%	0%	0%	0%	3%	18%	37%	55%	70%
	40	0%	0%	0%	0%	10%	25%	41%	57%	70%
	60	0%	0%	0%	2%	16%	32%	47%	63%	75%
	80	0%	0%	3%	8%	20%	33%	47%	63%	75%
	100	0%	2%	8%	14%	27%	39%	52%	64%	75%

Life Stage		Fatigue									
10		**65**	**69**	**73**	**77**	**81**	**85**	**89**	**93**	**97**	**100**
Nature	**-100**	0%	2%	8%	14%	20%	27%	33%	39%	45%	48%
	-80	0%	2%	9%	16%	24%	32%	39%	47%	55%	59%
	-60	0%	3%	10%	18%	27%	37%	46%	55%	65%	70%
	-40	0%	4%	14%	25%	36%	46%	57%	68%	79%	85%
	-20	0%	5%	18%	32%	46%	60%	74%	89%	98%	100%
	-1	0%	5%	21%	40%	59%	78%	94%	100%	100%	100%

Life Stage		Fatigue												
10		**26**	**30**	**34**	**38**	**42**	**46**	**50**	**54**	**58**	**62**	**70**	**78**	**86**	**91**
Nature	**0**	0%	0%	0%	0%	0%	0%	5%	12%	21%	30%	49%	70%	92%	100%
	20	0%	0%	0%	0%	0%	3%	10%	18%	27%	37%	55%	74%	93%	100%
	40	0%	0%	0%	0%	4%	10%	18%	25%	33%	41%	57%	74%	93%	100%
	60	0%	0%	0%	2%	9%	16%	24%	32%	39%	47%	63%	79%	94%	100%
	80	0%	0%	3%	8%	14%	20%	27%	33%	40%	47%	63%	79%	94%	100%
	100	0%	2%	8%	14%	20%	27%	33%	39%	45%	52%	64%	79%	94%	100%

d. “Lack of Motivation Threshold” calculation.

i. Inputs into this calculation are NATURE, STRESS, SPOIL, and SMALL RANDOM NUMBER

ii. The threshold calculations is as follows:

1. NATURE >= 0, Thd = -20 + SRN[1] % ((2 x STRESS + SPOIL) / 2 + 1)
2. NATURE < 0, Thd = -20 + SRN[1] % ((2 x SPOIL + STRESS) / 2 + 1)
3. The following table is the percentage chance that you will lack motivation:

		NATURE >= 0, 2 x Stress + Spoil; NATURE < 0, 2 x Spoil + Stress														
		<20	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**	**130**	**140**	**150**
Motivation	**0**	0%	5%	34%	49%	61%	64%	69%	71%	77%	77%	77%	79%	84%	84%	84%
	10	0%	0%	3%	26%	41%	48%	53%	60%	65%	65%	65%	71%	77%	77%	77%
	20	0%	0%	0%	2%	21%	33%	38%	48%	53%	53%	55%	63%	69%	69%	69%
	30	0%	0%	0%	0%	2%	17%	25%	36%	41%	41%	48%	55%	61%	61%	61%
	40	0%	0%	0%	0%	0%	2%	13%	25%	30%	32%	40%	48%	53%	53%	53%
	50	0%	0%	0%	0%	0%	0%	1%	13%	18%	24%	32%	40%	45%	45%	45%
	60	0%	0%	0%	0%	0%	0%	0%	1%	9%	16%	24%	32%	38%	38%	38%
	70	0%	0%	0%	0%	0%	0%	0%	0%	1%	9%	16%	24%	30%	30%	30%
	80	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	9%	16%	22%	22%	22%
	90	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	9%	14%	14%	16%
	100	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	6%	8%	12%

e. Monster Item Selection Tables

i. ITEM GROUP SELECTION = 0

Main Type	1	2	3	4	5
Ape	Mango	Meat	Apple Cake	Pile of Meat	Play
Arrow Head	Fish	Nuts Oil	Tablet	Dummy	Tourney
Bajarl	Grease	Olive Oil	Polish	Perfume Oil	Play
Baku	Mango	Candy	Meat	Pile of Meat	Play
Beaclon	Potato	Flower	Cup Jelly	Rest	Play
Centaur	No Desire	Nuts Oil	Meat	Meteorite	Play
ColorPandora	Potato	Candy	Apple Cake	Play	Play
Dragon	No Desire	Nuts Oil	Tablet	Tourney	Tourney
Ducken	Fish	Torles Water	Disc Dish	Play	Play
Durahan	No Desire	Whet Stone	Nuts Oil	Colart Tea	Tourney
Gaboo	No Desire	Flower	Torles Water	Soil	Play
Gali	No Desire	No Desire	Rest	Sun Lamp	Play
Ghost	Incense	Flower	Steamed Bun	Silk Hat	Play
Golem	Flower	Mango	Pile of Meat	Rest	Play
Hare	Candy	Sour Jelly	Dummy	Tourney	Play
Henger	Grease	Tourney	Tourney	Play	Play
Hopper	Olive Oil	Dummy	Tourney	Play	Play
Jell	Torles Water	Fish	Ice of Papas	Rock Candy	Play
Jill	Ice Candy	Ice of Papas	Pile of Meat	Play	Play
Joker	Bone	Whet Stone	Dummy	Tourney	Tourney
Kato	Fish Bone	Fish	Olive Oil	Perfume Oil	Play
Metalner	Tablet	Wool Ball	Gramophone	Kaleidoscope	Play
Mew	Fish Bone	Candy	Playmate	Wool Ball	Play
Mocchi	Rice Cracker	Parepare Tea	Fish	Rest	Play
Mock	Flower	Torles Water	Sweet Jelly	Rest	Play
Monol	Silk Cloth	Nuts Oil	Polish	Mirror	Play
Naga	Meat	Dummy	Tourney	Tourney	Play
Niton	Bay Shrimp	Fish	Rest	Rest	Play
Phoenix	Match	Grease	Cedar Log	Tourney	Tourney
Pixie	Nuts Oil	Fish	Colart Tea	Play	Play
Plant	Torles Water	Soil	Rest	Rest	Play
Suezo	Ice Candy	Candy	Apple Cake	Rest	Play
Tiger	Bone	Shoes	Fish	Playmate	Play
Undine	Fish	Torles Water	Perfume	Mirror	Play
Worm	Nuts Oil	Soil	Rest	Play	Play
Wracky	Razor Blade	Sweet Jelly	Wool Ball	Play	Play
Zilla	Bay Shrimp	Fish	Torles Water	Ice of Papas	Disc Dish
Zuum	No Desire	Meat	Sour Jelly	Tablet	Play

Monster Rancher 2 Drill Processing

ii. ITEM GROUP SELECTION = 1

Main Type	1	2	3	4	5
Ape	Mango	Meat	Rest	Rest	Play
Arrow Head	Fish	Tablet	Dummy	Tourney	Play
Bajarl	Grease	Olive Oil	Sweet Jelly	Wool Ball	Play
Baku	Potato	Fish	Meat	Pile of Meat	Play
Beaclon	Potato	Flower	Candy	Apple Cake	Play
Centaur	No Desire	Whet Stone	Meteorite	Shiny Stone	Play
ColorPandora	Potato	Rest	Play	Play	Play
Dragon	No Desire	Candy	Apple Cake	Tourney	Play
Ducken	Ice Candy	Rest	Play	Play	Play
Durahan	Silk Cloth	Polish	Perfume	Tourney	Play
Gaboo	No Desire	Flower	Soil	Play	Play
Gali	No Desire	No Desire	Rest	Rest	Play
Ghost	Incense	Perfume	Stick	Silk Hat	Play
Golem	Flower	Fish	Meat	Pile of Meat	Play
Hare	Ice Candy	Steamed Bun	Apple Cake	Rock Candy	Play
Henger	No Desire	Grease	Silk Cloth	Tourney	Play
Hopper	Candy	Dummy	Wool Ball	Rest	Play
Jell	Flower	Torles Water	Fish	Gramophone	Play
Jill	No Desire	Ice Candy	Ice of Papas	Pile of Meat	Play
Joker	Bone	Whet Stone	Play	Tourney	Tourney
Kato	Fish Bone	Fish	Olive Oil	Perfume Oil	Play
Metalner	Flower	Torles Water	Soil	Ice of Papas	Play
Mew	Fish Bone	Fish	Playmate	Disc Dish	Play
Mocchi	Rice Cracker	Parepare Tea	Steamed Bun	Play	Play
Mock	Torles Water	Sweet Jelly	Soil	Sun Lamp	Play
Monol	Whet Stone	Rest	Meteorite	Shiny Stone	Play
Naga	Nuts Oil	Dummy	Tourney	Tourney	Play
Niton	Bay Shrimp	Torles Water	Disc Dish	Rest	Rest
Phoenix	No Desire	No Desire	Match	Tourney	Play
Pixie	Candy	Apple Cake	Mirror	Shiny Stone	Play
Plant	Torles Water	Soil	Cedar Log	Sun Lamp	Play
Suezo	Ice Candy	Cup Jelly	Rock Candy	Play	Rest
Tiger	No Desire	Bone	Shoes	Meat	Play
Undine	No Desire	No Desire	Fish	Torles Water	Play
Worm	Torles Water	Rock Candy	Rest	Play	Play
Wracky	Razor Blade	Whet Stone	Sweet Jelly	Dummy	Play
Zilla	Bay Shrimp	Fish	Ice of Papas	Disc Dish	Play
Zuum	No Desire	Fish	Nuts Oil	Meat	Play

Monster Rancher 2 Drill Processing

iii. ITEM GROUP SELECTION = 2

Main Type	1	2	3	4	5
Ape	Cup Jelly	Rest	Rest	Rest	Play
Arrow Head	Fish	Tablet	Tourney	Tourney	Play
Bajarl	Grease	Olive Oil	Rest	Play	Play
Baku	Potato	Rest	Rest	Play	Play
Beaclon	Flower	Nuts Oil	Apple Cake	Tourney	Tourney
Centaur	No Desire	No Desire	No Desire	Gramophone	Kaleidoscope
ColorPandora	Potato	Cup Jelly	Rest	Play	Play
Dragon	No Desire	No Desire	Meat	Tourney	Play
Ducken	Ice Candy	Apple Cake	Wool Ball	Disc Dish	Play
Durahan	No Desire	Nuts Oil	Meat	Tourney	Play
Gaboo	No Desire	No Desire	Torles Water	Soil	Play
Gali	No Desire	No Desire	Sun Lamp	Sun Lamp	Play
Ghost	Candy	Stick	Silk Hat	Play	Play
Golem	Flower	Milk	Nuts Oil	Play	Play
Hare	Ice Candy	Cup Jelly	Wool Ball	Play	Play
Henger	Grease	Tourney	Tourney	Tourney	Tourney
Hopper	Candy	Wool Ball	Rest	Play	Play
Jell	Flower	Fish	Rest	Play	Play
Jill	No Desire	Ice Candy	Ice of Papas	Meat	Play
Joker	Bone	Play	Tourney	Tourney	Tourney
Kato	Fish Bone	Fish	Olive Oil	Play	Play
Metalner	Flower	Rest	Rest	Play	Play
Mew	Fish Bone	Candy	Playmate	Play	Play
Mocchi	Tooth Pick	Steamed Bun	Wool Ball	Play	Play
Mock	Torles Water	Soil	Sun Lamp	Rest	Play
Monol	Grease	Torles Water	Silk Cloth	Gramophone	Play
Naga	Dummy	Tourney	Tourney	Tourney	Tourney
Niton	Fish	Rest	Rest	Play	Play
Phoenix	No Desire	Match	Cedar Log	Tourney	Play
Pixie	Flower	Powder	Perfume	Mirror	Play
Plant	Flower	Sun Lamp	Rest	Play	Play
Suezo	Mango	Candy	Wool Ball	Play	Play
Tiger	No Desire	No Desire	Shoes	Meat	Play
Undine	No Desire	No Desire	No Desire	No Desire	Torles Water
Worm	Flower	Torles Water	Wool Ball	Play	Play
Wracky	Razor Blade	Whet Stone	Dummy	Tourney	Play
Zilla	Bay Shrimp	Torles Water	Ice of Papas	Rest	Play
Zuum	No Desire	No Desire	Meat	Tourney	Play

Monster Rancher 2 Drill Processing

f. Item effects for monster wants

Item	Cost (G)	Effect
Apple Cake	600	Fear -10%, Spoil +10, Size +10
Bay Shrimp	20	Size +1
Bone	20	Size +1
Candy	120	Spoil +1, Size +10, Stress -2
Cedar Log	300	Stress -1
Colart Tea	400	Stress -5, Size +5
Cup Jelly	150	Size -3
Disc Dish	700	Size +1
Dummy	200	Stress -1
Fish	100	Size +2
Fish Bone	20	Size +1
Flower	30	Passive - Stress -2%, No Use Effect
Gramophone	700	Stress -1
Grease	100	Stress -1
Ice Candy	40	Size +1
Ice of Papas	200	Stress -1
Incense	20	Stress -1
Kaleidoscope	1000	Stress -1
Mango	60	Fatigue -10, Fear +1, Spoil +1, Size +1
Match	20	Stress -1
Meat	300	Size +6
Meteorite	800	No Effect
Milk	50	Size +1
Mirror	700	No Effect
Nuts Oil**	200	Fatigue -28, Fear +1, Spoil +1, Stress -20%
Olive Oil	200	Size +1, Stress -1
Parepare Tea	80	Stress -1, Size +1
Perfume	300	Stress -1
Perfume Oil	400	Size +10, Stress -2
Pile of Meat	900	Size +12
Playmate	500	Stress -1
Polish	300	Stress -1
Potato	10	Size -1
Powder	100	Fatigue +5, Size -24
Razor Blade	20	Stress -1
Rice Cracker	20	Size +1
Rock Candy	700	Size +1
Shiny Stone	1500	No Effect
Shoes	80	Stress -1
Silk Cloth	200	Stress -1
Silk Hat	700	Stress -1
Soil	250	Stress -1

Monster Rancher 2 Drill Processing

Item	Cost (G)	Effect
Sour Jelly	200	Size +5, Nature +5*
Steamed Bun	100	Size +2
Stick	500	Stress -1
Sun Lamp	1000	Stress -1
Sweet Jelly	200	Size +5, Nature -5*
Tablet	500	Size +3
Tooth Pick	100	Stress -1
Torles Water	120	Stress -1
Whet Stone	200	Stress -1
Wool Ball	700	Stress -1

*This will calculate the NATURE ADJUSTMENT required to achieve an overall change in NATURE

**Henger, Durahan, Arrow Head - Main or Sub Type will only get the stress reduction

h. "Truancy Threshold" calculation.

i. Inputs into this calculation are NATURE

ii. The threshold calculation is as follows:

1. 150 - (SRN[1] % (100 - (NATURE / 2)))
2. The following table represents the percentage chance that you will end in TRUANT. Note: In order to get to this point during the previous step FATIGUE had to be above a threshold, so all information below those thresholds are not applicable:

		FATIGUE					
		50	**60**	**70**	**80**	**90**	**100**
NATURE	**-100**	22%	30%	38%	45%	53%	61%
	-60	22%	30%	38%	45%	53%	61%
	-50	20%	27%	35%	43%	51%	59%
	-40	16%	23%	31%	39%	47%	55%
	-30	12%	20%	27%	35%	43%	51%
	-20	8%	16%	23%	31%	39%	47%
	-10	4%	12%	20%	27%	35%	43%
	0	0%	8%	16%	23%	31%	41%
	0	n/a	n/a	n/a	23%	31%	41%
	10	n/a	n/a	n/a	20%	30%	41%
	20	n/a	n/a	n/a	18%	30%	41%
	30	n/a	n/a	n/a	18%	29%	41%
	40	n/a	n/a	n/a	12%	23%	35%
	50	n/a	n/a	n/a	6%	18%	29%
	60	n/a	n/a	n/a	0%	12%	23%
	70	n/a	n/a	n/a	0%	6%	22%
	80	n/a	n/a	n/a	0%	0%	16%
	90	n/a	n/a	n/a	0%	0%	8%
	100	n/a	n/a	n/a	0%	0%	0%

i. "Cheat Threshold" calculation.
   i. Inputs into this calculation are NATURE
   ii. Due to the way the comparison is implemented, motivation ends up being grouped points as noted in the table. The threshold calculations are as follows:
      1. NATURE >= 0, Motivation used for < comparison (-15 x (-MOTIVATION / 15))
         a. Threshold = 150 - 15 x ((NATURE / 10) + ((29921875 x SRN[1] / 25500000) % 100))
         b. The following table is the percentage chance that you will end in CHEAT when NATURE >=0:

		MOTIVATION							
		0	**1-15**	**16-30**	**31-45**	**46-60**	**61-75**	**76-90**	**91-100**
NATURE	**0-9**	10%	9%	8%	7%	6%	5%	4%	3%
	10-19	9%	8%	7%	6%	5%	4%	3%	2%
	20-29	8%	7%	6%	5%	4%	3%	2%	1%
	30-39	7%	6%	5%	4%	3%	2%	1%	0%
	40-49	6%	5%	4%	3%	2%	1%	0%	0%
	50-59	5%	4%	3%	2%	1%	0%	0%	0%
	60-69	4%	3%	2%	1%	0%	0%	0%	0%
	70-79	3%	2%	1%	0%	0%	0%	0%	0%
	80-89	2%	1%	0%	0%	0%	0%	0%	0%
	90-99	1%	0%	0%	0%	0%	0%	0%	0%
	100	0%	0%	0%	0%	0%	0%	0%	0%

      2. NATURE < 0, Motivation used for < comparison (-10 x (-MOTIVATION / 10))
         a. Threshold = 150 -10 * ((NATURE / 5) + ((29921875 * SRN[1] / 25500000) % 100))
         b. The following table is the percentage chance that you will end in CHEAT when NATURE < 0:

		MOTIVATION										
		0	**1-10**	**11-20**	**21-30**	**31-40**	**41-50**	**51-60**	**61-70**	**71-80**	**81-90**	**91-100**
NATURE	**-1--5**	16%	15%	14%	13%	12%	11%	10%	9%	8%	7%	6%
	-6--10	17%	16%	15%	14%	13%	12%	11%	10%	9%	8%	7%
	-11--15	18%	17%	16%	15%	14%	13%	12%	11%	10%	9%	8%
	-16--20	19%	18%	17%	16%	15%	14%	13%	12%	11%	10%	9%
	-21--25	20%	19%	18%	17%	16%	15%	14%	13%	12%	11%	10%
	-26--30	21%	20%	19%	18%	17%	16%	15%	14%	13%	12%	11%
	-31--35	22%	21%	20%	19%	18%	17%	16%	15%	14%	13%	12%
	-36--40	23%	22%	21%	20%	19%	18%	17%	16%	15%	14%	13%
	-41--45	24%	23%	22%	21%	20%	19%	18%	17%	16%	15%	14%
	-46--50	25%	24%	23%	22%	21%	20%	19%	18%	17%	16%	15%
	-51--55	26%	25%	24%	23%	22%	21%	20%	19%	18%	17%	16%
	-56--60	27%	26%	25%	24%	23%	22%	21%	20%	19%	18%	17%
	-61--65	28%	27%	26%	25%	24%	23%	22%	21%	20%	19%	18%
	-66--70	29%	28%	27%	26%	25%	24%	23%	22%	21%	20%	19%
	-71--75	30%	29%	28%	27%	26%	25%	24%	23%	22%	21%	20%
	-76--80	31%	30%	29%	28%	27%	26%	25%	24%	23%	22%	21%
	-81--85	32%	31%	30%	29%	28%	27%	26%	25%	24%	23%	22%
	-86--90	33%	32%	31%	30%	29%	28%	27%	26%	25%	24%	23%
	-81--95	34%	33%	32%	31%	30%	29%	28%	27%	26%	25%	24%
	-96--100	35%	34%	33%	32%	31%	30%	29%	28%	27%	26%	25%

j. "Failure Threshold" calculation
   i. Input into this calculation is FEAR, DRILL LEVEL, LIFE STAGE, SMALL RANDOM NUMBER, ATTRIBUTE GAIN
   ii. Due to the way the comparison is implemented, both FEAR and FATIGUE end up being grouped points as noted in the table. FATIGUE used (-5 x (-FATIGUE / 5)) and FEAR used (5 x (FEAR / 5)) in the > comparison.
   iii. NAG is the ATTRIBUTE GAIN (AG) that is next to it from a stored in address memory standpoint. [ERROR: see section (13)].
   iv. The threshold calculations are as follows:
      1. Light Drill
         a. Drill level 1 -> -75 + FEAR + (10 x NAG) + (20 x (LIFE STAGE + 1)) + (5 x (SRN[1] % 30))
         b. Drill level 2 -> -125 + FEAR + (10 x NAG) + (20 x (LIFE STAGE + 1)) + (5 x (SRN[1] % 30))
         c. Drill level 3 -> -200 + FEAR + (10 x NAG) + (20 x (LIFE STAGE + 1)) + (5 x (SRN[1] % 30))
         d. The following table is the approximate percentage chance that you will fail. All percentages above 100% should be limited to 100%, and all percentages below 0% should be limited to 0%. The higher and lower percentages have been left, so that you can determine what percent your condition is based on the following (these are just additive, not a percent of a percent).
            i. For each Life Stage increase, decrease % by 13 1/3%.
            ii. For each Gain increase decrease % by 6 2/3%
            iii. For Drill Level increase from 1 to 2 increase % by 33 1/3%
            iv. For Drill Level increase from 2 to 3 increase % by 50%

		Light Drill: Drill Level 1 - Life Stage 1 - Gain 1											
		Fatigue											
		0	**1-5**	**11-15**	**21-25**	**31-35**	**41-45**	**51-55**	**61-65**	**71-75**	**81-85**	**91-95**	**96-100**
Fear	**0-4**	36.7%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	86.7%	93.3%	100.0%	103.3%
	10-14	30.0%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	86.7%	93.3%	96.7%
	20-24	23.3%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	86.7%	90.0%
	30-34	16.7%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	83.3%
	40-44	10.0%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	76.7%
	50-54	3.3%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	70.0%
	60-64	-3.3%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	63.3%
	70-74	-10.0%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	56.7%
	80-84	-16.7%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	50.0%
	90-94	-23.3%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	43.3%
	100	-30.0%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	36.7%

      2. Hard Drill
         a. Since Hard Drill has distinct constants per drill due to coding errors they will be listed as follows:
            i. Pull = 40, Mediate = 50 , Leap = 50 , Swim = 40
         b. Drill level 1 -> -75 + FEAR + Drill Constant + (5 x (SRN[1] % 30))
         c. Drill level 2 -> -125 + FEAR + Drill Constant + (5 x (SRN[1] % 30))
         d. Drill level 3 -> -200 + FEAR + Drill Constant + (5 x (SRN[1] % 30))
         e. The following table is the approximate percentage chance that you will fail. All percentages above 100% should be limited to 100%, and all percentages below 0% should be limited to 0%. The higher and lower percentages have been left, so that you can determine what percent your condition is based on the following.
            i. For Drill Level increase from 1 to 2 increase % by 33 1/3%
            ii. For Drill Level increase from 2 to 3 increase % by 50%

		Pull and Swim Hard Drill: Drill Level 1											
		Fatigue											
		0	1-5	11-15	21-25	31-35	41-45	51-55	61-65	71-75	81-85	91-95	96-100
Fear	0-4	23.3%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	86.7%	90.0%
	10-14	16.7%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	83.3%
	20-24	10.0%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	76.7%
	30-34	3.3%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	70.0%
	40-44	-3.3%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	63.3%
	50-54	-10.0%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	56.7%
	60-64	-16.7%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	50.0%
	70-74	-23.3%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	43.3%
	80-84	-30.0%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	36.7%
	90-94	-36.7%	-33.3%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	30.0%
	100	-43.3%	-40.0%	-33.3%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	23.3%

		Meditate and Leap Hard Drill: Drill Level 1											
		Fatigue											
		0	1-5	11-15	21-25	31-35	41-45	51-55	61-65	71-75	81-85	91-95	96-100
Fear	0-4	16.7%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	80.0%	83.3%
	10-14	10.0%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	73.3%	76.7%
	20-24	3.3%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	66.7%	70.0%
	30-34	-3.3%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	60.0%	63.3%
	40-44	-10.0%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	53.3%	56.7%
	50-54	-16.7%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	46.7%	50.0%
	60-64	-23.3%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	40.0%	43.3%
	70-74	-30.0%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	33.3%	36.7%
	80-84	-36.7%	-33.3%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	26.7%	30.0%
	90-94	-43.3%	-40.0%	-33.3%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	20.0%	23.3%
	100	-50.0%	-46.7%	-40.0%	-33.3%	-26.7%	-20.0%	-13.3%	-6.7%	0.0%	6.7%	13.3%	16.7%

k. “Great Threshold”
   i. Inputs into this calculation are NATURE
   ii. Due to the way the comparison is implemented, motivation ends up being grouped points as noted in the table. The threshold calculations are as follows:
      1. Motivation used for > comparison (10 x (MOTIVATION / 10))
      2. NATURE >= 0,
         a. Light Drill, Threshold = ((10000 x SRN[1] / 25500) % 100) - (NATURE / 10), this results in a more even distribution of the random number effect
         b. Hard Drill, Threshold = (SRN[1] % 100) - (NATURE / 10), this results in a less even distribution such that random numbers less than 56 carry more weight
         c. The following table is the approximate chance that you will end in GREAT when NATURE >=0:

		MOTIVATION										
		0-9	**10-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80-89**	**90-99**	**100**
NATURE	**0-9**	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
	10-19	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%
	20-29	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
	30-39	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%
	40-49	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
	50-59	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
	60-69	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%
	70-79	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%
	80-89	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%
	90-99	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%
	100	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%

3. NATURE < 0
    a. Light Drill, Threshold = ((10000 x SRN[1] / 25500) % 100) - (NATURE / 20), this results in a more even distribution of the random number effect
    b. Hard Drill, Threshold = (SRN[1] % 100) - (NATURE / 20), this results in a less even distribution such that random numbers less than 56 carry more weight
    c. The following table is the approximate chance that you will end in GREAT when NATURE < 0:

		MOTIVATION										
		0-9	**10-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80-89**	**90-99**	**100**
NATURE	**0--9**	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
	-20--39	0%	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
	-40--59	0%	0%	0%	1%	2%	3%	4%	5%	6%	7%	8%
	-60--79	0%	0%	0%	0%	1%	2%	3%	4%	5%	6%	7%
	-80--99	0%	0%	0%	0%	0%	1%	2%	3%	4%	5%	6%
	-100	0%	0%	0%	0%	0%	0%	1%	2%	3%	4%	5%

l. Fear, Spoil, Stress Adjustment calculations.
    i. Input into this calculation is STYLE
    ii. The adjustment is such that there is an even distribution from -100 STYLE to 100 STYLE. Values given are an F value (completely fearful [-100 STYLE]) to an S value (completely spoiled [100 STYLE]). Due to the way the calculations are done when the difference or sum between F and S is odd, the large magnitude value will not be reached (i.e. F:-1, S:-10, only -9 will be reached at 100 Style). NOTE: for the following equation all rounding will be done towards zero for divisions, unlike what was called out in section “a” of the appendix (i.e. 0.5 -> 0, -0.5 -> 0)
    iii. Adjustment = ((S + F) / 2) - ((F - S) x STYLE / 200)