

<u>Welcome to TG and GT's Full Marks Calculator!</u>			
<p>This spreadsheet was created by members of the Tie Group (TG) and the German Tie Group (GT). We are a small but enthusiastic community of HPHM players - in addition to tying in Full Marks and House Pride events, we love researching game mechanics!</p> <p>If you are not a member of the group, and are interested in joining us, please check out this link: https://www.reddit.com/r/HPHMGrounder/comments/13nz0ko/join_a_tie_group_for_a_more_fun_and_rewarding_fm/</p>			

The TG Full Marks Calculator Guide

This calculator aims to figure out the best tiles to complete on each FM board you get. It calculates the amount of time and points each pattern will give you, choosing the best based on points earned per hour (pts/hr). Make a copy of this spreadsheet so that you can edit it!

STEP 1: Input the data

Hours To Complete	Class Type	Points	Bonus Features	Spell Pattern	Boost																																																																	
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Hours To Complete Grid

For non-classes:
Enter the time the tile will take in hours. Include any time necessary for sleeping/other commitments.

Hours To Complete			
0	14	12	10
6	14	0	0
12	10	10	18
7	0	6	10

For classes:
Enter the number of hours the tile would take starting with 0 energy. This is usually approximately the number of stars required. Sleep time need not be included - there is a feature for that (find out more below).

For attributes:
Enter the number of attributes required. Consider subtracting a small amount for attributes received from feeding creatures/buying customisations—the calculator only accounts for classes. You could enter 0 if you're sure you can complete the tile w/o classes

Class Type Grid

Class Type	Any	Specific classes	Non-class	Attributes																				
<table border="1" style="width: 100%; text-align: center;"> <tr><td>Non *</td><td>Heart *</td><td>Non *</td><td>Non *</td></tr> <tr><td>Any *</td><td>Any *</td><td>Non *</td><td>Emc *</td></tr> <tr><td>Non *</td><td>Any *</td><td>Mag *</td><td>Non *</td></tr> <tr><td>Non *</td><td>Non *</td><td>Non *</td><td>Polit *</td></tr> </table>	Non *	Heart *	Non *	Non *	Any *	Any *	Non *	Emc *	Non *	Any *	Mag *	Non *	Non *	Non *	Non *	Polit *	<table border="1" style="width: 100%; text-align: center;"> <tr><td>Any</td></tr> </table>	Any	<table border="1" style="width: 100%; text-align: center;"> <tr><td>Any</td></tr> </table>	Any	<table border="1" style="width: 100%; text-align: center;"> <tr><td>Any</td></tr> </table>	Any	<table border="1" style="width: 100%; text-align: center;"> <tr><td>Any</td></tr> </table>	Any
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Four options:
Any Tiles that can include stars/minigames from ANY class. Also includes earn ANY attribute type tiles.
Specific classes Tiles that accept stars/minigames from ONE class type. Enter the class required.
Non-class Tiles that don't ask for stars/minigames from classes.
Attributes Tiles that ask you to earn attributes.

Points Grid

Points			
20	30	40	20
40	10	10	40
40	20	20	40
20	30	30	20

Enter the number of points each tile is worth. Use boosted values if boosted.

Bonus Features

Bonus Features	
Sleep Time	0
Energy	0
Full Bar	40

Sleep Time Enter the time you'll be asleep (or have other commitments) while completing your board. (This calculator assumes that you'll wake up with 2 hours worth of energy to spend, so sleep times of less than 2 hours don't affect the calculations)
Energy Enter how much energy you have when starting the board.
Full Bar Enter how much energy is a full bar for you.

Spell Pattern Grid

Spell Pattern			
1	1	1	
1			1
1			1
	1	1	

Each FM, there is a spell pattern that gives extra points.

Enter 1 in each square included in the pattern. Leave the other squares blank.

Enter the points given by the spell pattern in the purple square on the right. If boosted, use the boosted points shown.

Boosted

Boost	
1x	-

Select which boost you have

STEP 2: The Results

Best Triple	Triple 5	Spell Pattern	Show Double	Best Double	Double 29	Best Single	Single 5																																																																																																											
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You'll see the best triple, spell pattern, best double and best single.

Example (Best Triple):

Best Triple **Triple 5**

20	30	40	20
40	10	10	40
40	20	0	0
20	30	30	20

 Tiles required for the pattern are deep green. Other tiles you're also expected to complete in the time are pale green. (Specific class tiles are never added to this for simplicity)

Points Shows the number of points expected from the board.
Time Time taken to complete the required tiles in hours.
Pts/hr Number of points per hour.

Points 620 Pts/hr 38.75
Time 16.00

The blue square in the top right gives a name to the pattern.

You can scroll down the sheet to look through calculations for all patterns. The name for each pattern is given in column A.

Show Double	Best Double	Double 29	Best Single	Single 5																																																																		
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Choose "Yes" for Show Double and Show Single to see the results for best double and best single respectively. (Doubles and singles blow through refresh times, so I would advise avoiding those unless a triple has really low pts/hr)

RECOMMENDATIONS

1. Choose the BEST TRIPLE or SPELL PATTERN
2. Aim for 30 POINTS PER HOUR or more
3. If you can't reach this with a triple or spell pattern, try flipping a tile, or go for the best double/single
4. To simulate flipping a tile, replace the tile you want to flip with zero (assumes that you'll be able to do the new tile)

WARNINGS

1. Quite often, doubles/singles will have higher pts/hr than triples/spell patterns. However, I'd advise against doing these, because they waste cooldowns. Triples/spell patterns are better long term.
2. Sometimes, you might be able to complete a few tiles that the calculator didn't include. So you might not get exactly the number of points stated here.
3. The extra tiles in addition to those required for the pattern need not always be completed. Sometimes it's more beneficial to leave them for the next board to not waste cooldowns.
4. As an example, the 'best single' may sometimes actually show a double, and it won't add the correct points on for the double. Don't worry too much about this - it means that the same option (or a better one) will show up under a different type of pattern with the correct number of points.

Basically, a spreadsheet can never replace common sense. This is just a guide to help people who struggle with finding the best board to do, and it shouldn't be followed blindly.

Hours To Complete				Class Type				Points				Bonus Features		Spell Pattern				550	Boost
200	13	0	2	Empath	Assignm	Non-cla	Non-cla	10	20	20	10	Sleep Time	0	1	1	1		1x	
100	8	0	6	Attribute	Any	Non-cla	Empath	20	40	30	20	Energy	16	1			1		
0	11	11	0	Non-cla	Any	Muggle	Non-cla	20	40	40	20	Full Bar	51	1		1			
0	0	0	6	Non-cla	Non-cla	Non-cla	Potions	10	30	20	10			1			1		

Best Triple				Triple 7				Spell Pattern				Show Double		Best Double				Double 16		Best Single				Single 4	
0	0	20	10	10	20	20	10	10	20	20	10	Yes	0	0	20	10	0	0	20	10	0	0	20	10	
20	40	30	20	20	40	30	20	20	40	30	20		20	0	30	20	20	0	30	20	20	0	30	20	
20	40	40	20	20	40	40	20	20	40	40	20	Show Single	20	0	0	20	20	0	0	20	20	0	0	20	
10	30	20	0	10	30	20	10	10	30	20	10	Yes	10	30	20	10	10	30	20	10	10	30	20	10	
Points	570	Pts/hr	57.38	Points	910	Pts/hr	28.50	Points	350	Pts/hr	70.95	Points	270	Pts/hr	54.73										
Time	9.93	Time	31.93	Time	4.93	Time	4.93																		

TRIPLE	250	Minimum Points for Pattern				Expected Points (adds non-specific-class tasks that take less time than required for the pattern)						
Triple 1	1	1	1	1	10	20	20	10	10	20	20	10
	1	1			20	40	0	0	20	40	30	20
	1		1		20	0	40	0	20	40	40	20
	1			1	10	0	0	10	10	30	20	10
Min poi	450	Min pts	14.09									
Exp. pc	610	Exp. pt	19.10									
Time	31.933											

TRIPLE	250	Minimum Points for Pattern				Expected Points (adds non-specific-class tasks that take less time than required for the pattern)						
Triple 2	1	1			10	20	0	0	10	20	20	10
	1	1	1	1	20	40	30	20	20	40	30	20
		1	1		0	40	40	0	20	40	40	20
		1		1	0	30	0	10	10	30	20	10
Min poi	510	Min pts	15.97									
Exp. pc	610	Exp. pt	19.10									
Time	31.933											

TRIPLE	250	Minimum Points for Pattern				Expected Points (adds non-specific-class tasks that take less time than required for the pattern)						
Triple 3	1		1		10	0	20	0	10	0	20	10
		1	1		0	40	30	0	20	40	30	20
	1	1	1	1	20	40	40	20	20	40	40	20
			1	1	0	0	20	10	10	30	20	10
Min poi	500	Min pts	21.80									
Exp. pc	590	Exp. pt	25.73									
Time	22.933											

TRIPLE	250	Minimum Points for Pattern				Expected Points (adds non-specific-class tasks that take less time than required for the pattern)						
Triple 4	1			1	10	0	0	10	10	0	20	10
		1		1	0	40	0	20	20	40	30	20
			1	1	0	0	40	20	20	40	40	20
	1	1	1	1	10	30	20	10	10	30	20	10
Min poi	460	Min pts	20.06									
Exp. pc	590	Exp. pt	25.73									
Time	22.933											

TRIPLE	250	Minimum Points for Pattern				Expected Points (adds non-specific-class tasks that take less time than required for the pattern)						
Triple 5	1			1	10	0	0	10	10	0	20	10

Time 22.933:

DOUBL 140

Minimum Points for Pattern

Expected Points (adds non-specific-class tasks that take less time than required for the pattern)

Double 20	1			
		1		
			1	
	1	1	1	1

10	0	0	0
0	40	0	0
0	0	40	0
10	30	20	10

10	0	20	10
20	40	30	20
20	40	40	20
10	30	20	10

Min poi 300 Min pts 13.08

Exp. pc 480 Exp. pt 20.93

Time 22.933:

DOUBL 140

Minimum Points for Pattern

Expected Points (adds non-specific-class tasks that take less time than required for the pattern)

Double 21	1			
	1	1		
			1	
	1			1

10	0	0	0
20	40	0	0
20	0	40	0
10	0	0	10

10	0	20	10
20	40	30	20
20	40	40	20
10	30	20	10

Min poi 290 Min pts 12.65

Exp. pc 480 Exp. pt 20.93

Time 22.933:

DOUBL 140

Minimum Points for Pattern

Expected Points (adds non-specific-class tasks that take less time than required for the pattern)

Double 22	1	1		
		1		
		1	1	
		1		1

10	20	0	0
0	40	0	0
0	40	40	0
0	30	0	10

10	20	20	10
20	40	30	20
20	40	40	20
10	30	20	10

Min poi 330 Min pts 10.33

Exp. pc 500 Exp. pt 15.66

Time 31.933:

DOUBL 140

Minimum Points for Pattern

Expected Points (adds non-specific-class tasks that take less time than required for the pattern)

Double 23	1		1	
		1	1	
			1	
		1	1	1

10	0	20	0
0	40	30	0
0	0	40	0
0	0	20	10

10	0	20	10
20	40	30	20
20	40	40	20
10	30	20	10

Min poi 310 Min pts 13.52

Exp. pc 480 Exp. pt 20.93

Time 22.933:

DOUBL 140

Minimum Points for Pattern

Expected Points (adds non-specific-class tasks that take less time than required for the pattern)

Double 24	1			1
		1		1
			1	1
			1	1

10	0	0	10
0	40	0	20
0	0	40	20
0	0	0	10

10	0	20	10
20	40	30	20
20	40	40	20
10	30	20	10

Min poi 290 Min pts 12.65

Exp. pc 480 Exp. pt 20.93

Time 22.933:

DOUBL 140

Minimum Points for Pattern

Expected Points (adds non-specific-class tasks that take less time than required for the pattern)

Double 25	1	1	1	1
			1	
		1		
	1			

10	20	20	10
0	0	30	0
0	40	0	0
10	0	0	0

10	20	20	10
20	40	30	20
20	40	0	20
10	30	20	0

Min poi 280 Min pts 14.05

