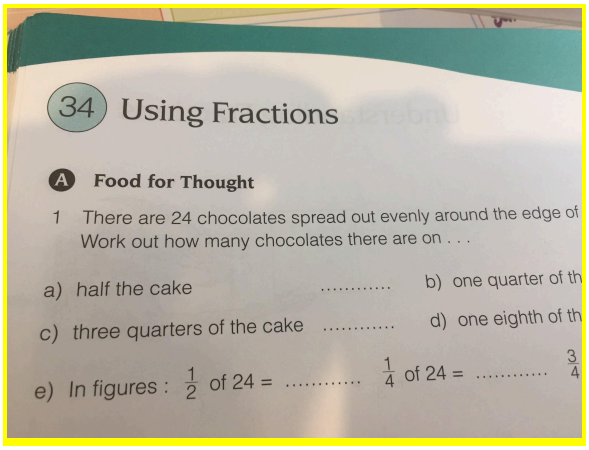
Einsteins Modelling Book Maths

T4 W4



T4 Week 1



34 Using Fractions

A **Food for Thought**

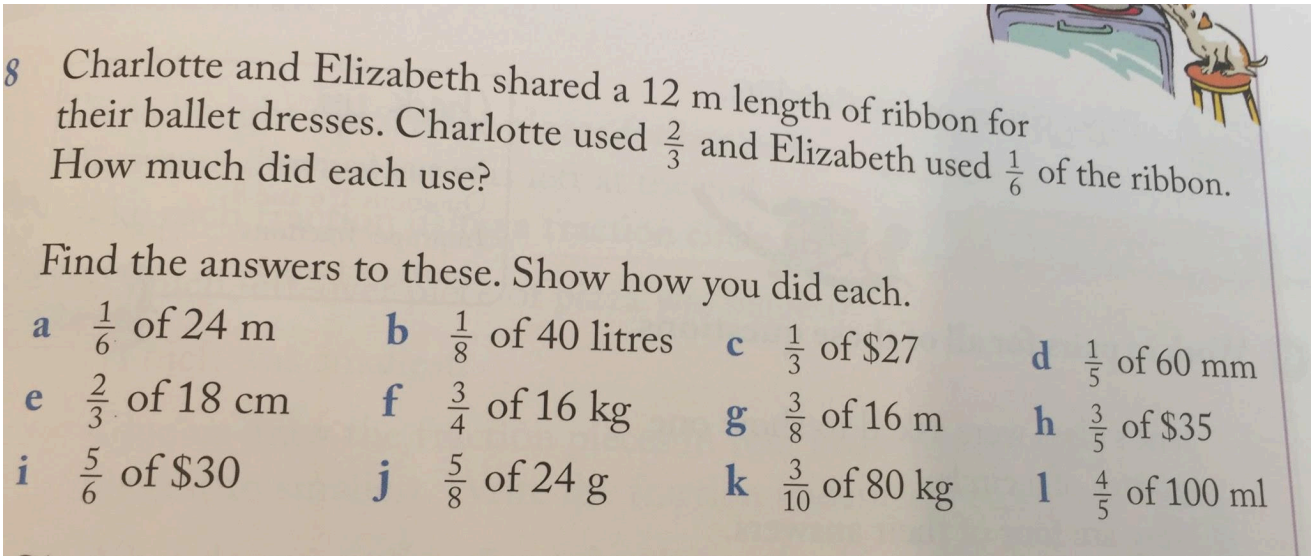
1 There are 24 chocolates spread out evenly around the edge of
Work out how many chocolates there are on . . .

a) half the cake ..... b) one quarter of th

c) three quarters of the cake ..... d) one eighth of th

e) In figures : $\frac{1}{2}$ of 24 = ... $\frac{1}{4}$ of 24 = ... $\frac{3}{4}$

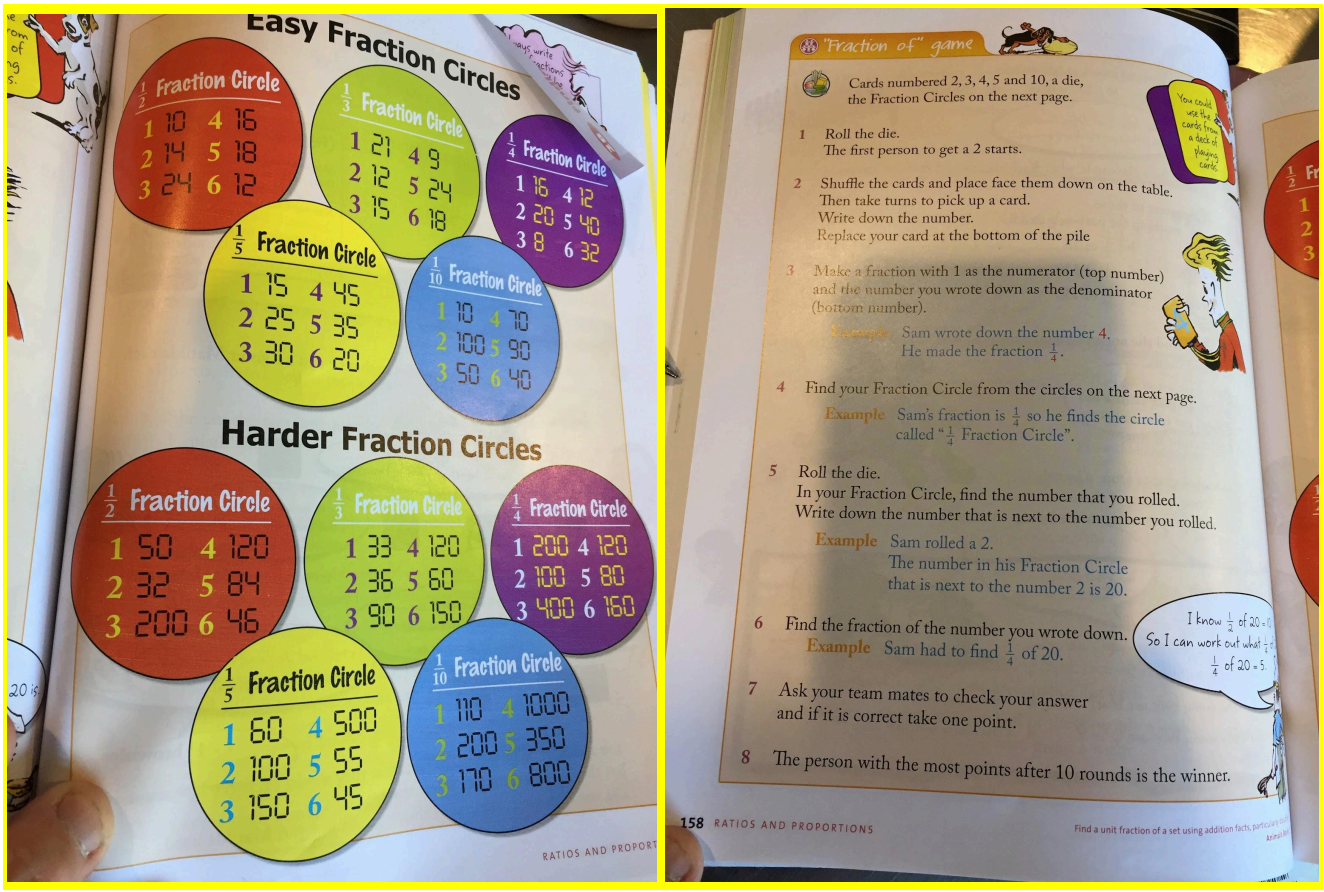
1. Complete Activity sheet P34 Dragon Maths
2. Play Fraction circle game. (see maths games box)
3. Complete these problems below.



8 Charlotte and Elizabeth shared a 12 m length of ribbon for their ballet dresses. Charlotte used $\frac{2}{3}$ and Elizabeth used $\frac{1}{6}$ of the ribbon. How much did each use?

Find the answers to these. Show how you did each.

a $\frac{1}{6}$ of 24 m	**b** $\frac{1}{8}$ of 40 litres	**c** $\frac{1}{3}$ of \$27	**d** $\frac{1}{5}$ of 60 mm
e $\frac{2}{3}$ of 18 cm	**f** $\frac{3}{4}$ of 16 kg	**g** $\frac{3}{8}$ of 16 m	**h** $\frac{3}{5}$ of \$35
i $\frac{5}{6}$ of \$30	**j** $\frac{5}{8}$ of 24 g	**k** $\frac{3}{10}$ of 80 kg	**l** $\frac{4}{5}$ of 100 ml



T3 Week 9

Monday WALT Find fractions of sets by dividing by denominator

Fraction tiles.



1 Joel's classroom had a set of fraction tiles to use to help compare fractions.
Use the diagram above or fraction tiles to answer these questions.

a Is $\frac{1}{2}$ bigger than $\frac{2}{3}$?

b Which is smaller, $\frac{3}{5}$ or $\frac{5}{8}$?

c Which is bigger, $\frac{1}{3}$ or $\frac{2}{4}$?

d Which is smaller, $\frac{2}{6}$ or $\frac{3}{10}$?



2 **a** Put these in order from biggest to smallest.

$\frac{1}{4}$, $\frac{3}{6}$, $\frac{5}{8}$, $\frac{1}{5}$, $\frac{7}{10}$

b Put these in order from smallest to biggest.

$\frac{3}{10}$, $\frac{2}{3}$, $\frac{5}{8}$, $\frac{4}{5}$, $\frac{1}{2}$

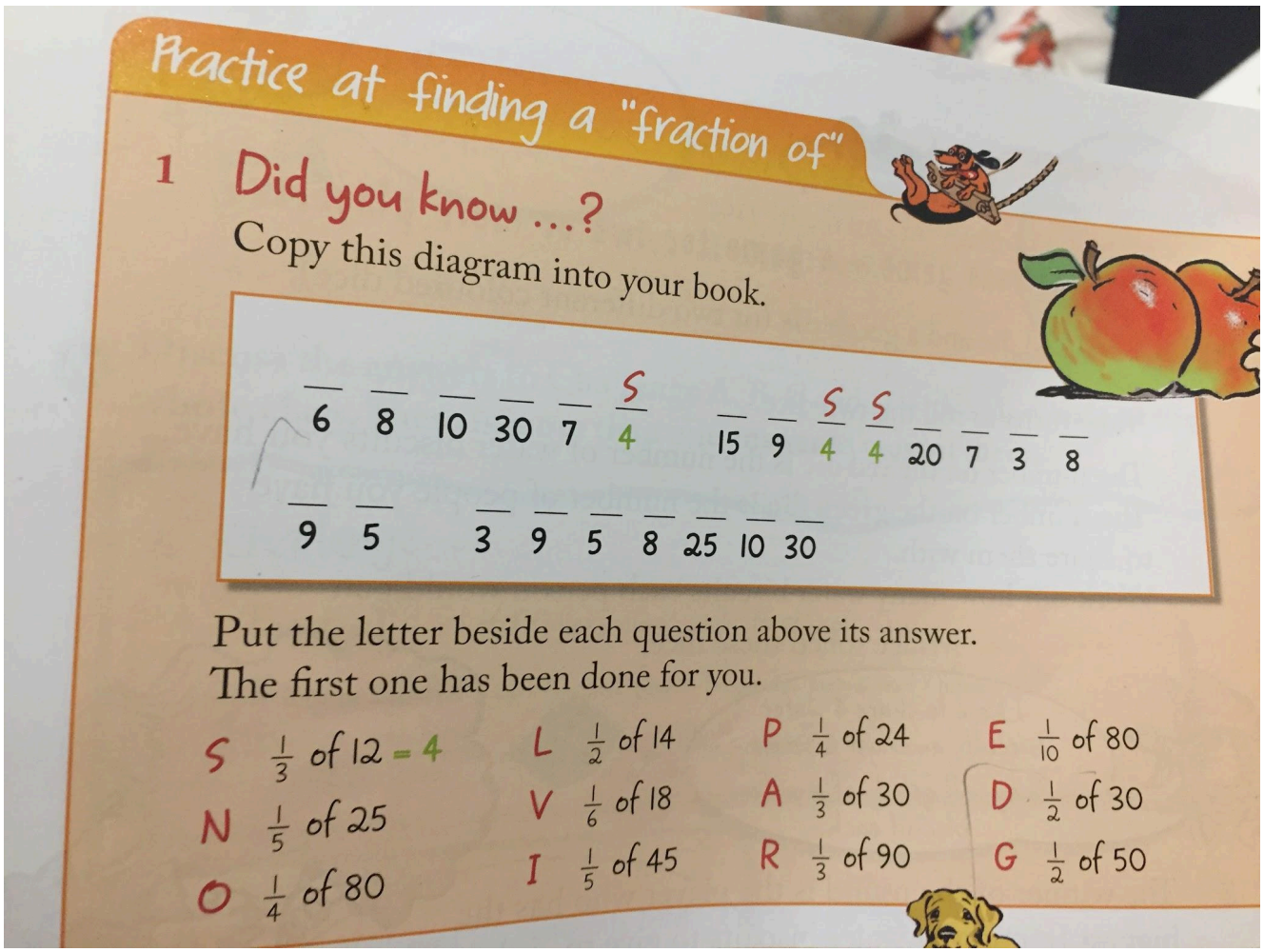
3 Find a fraction between these.

a $\frac{1}{2}$ and $\frac{1}{3}$ **b** $\frac{4}{5}$ and $\frac{3}{6}$ **c** $\frac{2}{6}$ and $\frac{2}{10}$ **d** $\frac{7}{8}$ and 1

W9 Monday Activity

Fractions wall pg 175 and code breaker activity pg 188

HINT -Divide the number by the denominator.



Practice at finding a "fraction of"

1 Did you know ...?

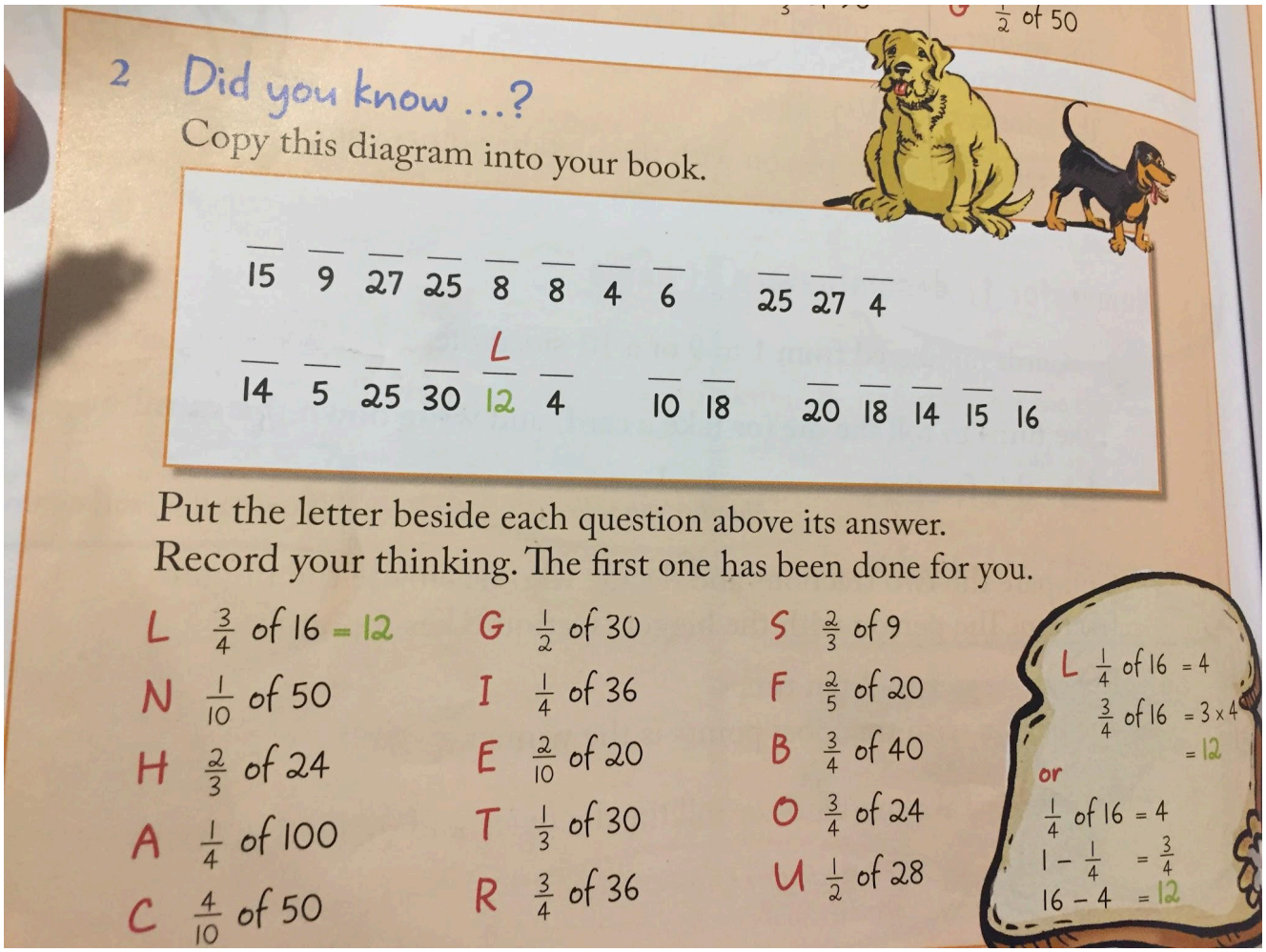
Copy this diagram into your book.

6	8	10	30	7	$\frac{S}{4}$		15	9	$\frac{S}{4}$	$\frac{S}{4}$	20	7	3	8	
9	5		3	9	5	8	25	10	30						

Put the letter beside each question above its answer.
The first one has been done for you.

S $\frac{1}{3}$ of 12 = 4	L $\frac{1}{2}$ of 14	P $\frac{1}{4}$ of 24	E $\frac{1}{10}$ of 80
N $\frac{1}{5}$ of 25	V $\frac{1}{6}$ of 18	A $\frac{1}{3}$ of 30	D $\frac{1}{2}$ of 30
O $\frac{1}{4}$ of 80	I $\frac{1}{5}$ of 45	R $\frac{1}{3}$ of 90	G $\frac{1}{2}$ of 50

Tuesday -- WALT Find fractions of sets by dividing by denominator and multiplying by numerator
Code breaker activity pg 188



$\frac{1}{2}$ of 50

2 Did you know ...?

Copy this diagram into your book.

15	9	27	25	8	8	4	6	25	27	4

				L								
14	5	25	30	12	4	10	18	20	18	14	15	16

Put the letter beside each question above its answer.
Record your thinking. The first one has been done for you.

L $\frac{3}{4}$ of 16 = 12

N $\frac{1}{10}$ of 50

H $\frac{2}{3}$ of 24

A $\frac{1}{4}$ of 100

C $\frac{4}{10}$ of 50

G $\frac{1}{2}$ of 30

I $\frac{1}{4}$ of 36

E $\frac{2}{10}$ of 20

T $\frac{1}{3}$ of 30

R $\frac{3}{4}$ of 36

S $\frac{2}{3}$ of 9

F $\frac{2}{5}$ of 20

B $\frac{3}{4}$ of 40

O $\frac{3}{4}$ of 24

U $\frac{1}{2}$ of 28

L $\frac{1}{4}$ of 16 = 4
$\frac{3}{4}$ of 16 = 3 x 4
= 12

or

$\frac{1}{4}$ of 16 = 4
$1 - \frac{1}{4} = \frac{3}{4}$
16 − 4 = 12

Wednesday - WALT add and subtract fractions with the same denominator

All the fractions have the same denominator.
All you need to do is to add the two numerators up, and keep the denominator the same!

1) $\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$

2) $\frac{1}{4} + \frac{2}{4} = \frac{\quad}{4}$

3) $\frac{1}{5} + \frac{2}{5} = \frac{\quad}{5}$

4) $\frac{2}{6} + \frac{1}{6} = \frac{\quad}{6}$

5) $\frac{1}{8} + \frac{1}{8} = \frac{\quad}{8}$

6) $\frac{2}{5} + \frac{2}{5} = \frac{\quad}{5}$

7) $\frac{1}{9} + \frac{2}{9} = \frac{\quad}{9}$

8) $\frac{3}{10} + \frac{1}{10} = \frac{\quad}{10}$

9) $\frac{1}{3} + \frac{1}{3} = \frac{\quad}{3}$

10) $\frac{2}{7} + \frac{2}{7} = \frac{\quad}{7}$

All the fractions have the same denominator.
Subtract the second numerator from the first, keeping the denominator the same!

1) $\frac{7}{5} - \frac{3}{5} = \frac{\quad}{5}$

2) $\frac{6}{7} - \frac{2}{7} = \frac{\quad}{7}$

3) $\frac{7}{9} - \frac{3}{9} = \frac{\quad}{9}$

4) $\frac{10}{4} - \frac{3}{4} = \frac{\quad}{4}$

5) $\frac{8}{6} - \frac{3}{6} = \frac{\quad}{\quad}$

6) $\frac{12}{8} - \frac{5}{8} = \frac{\quad}{\quad}$

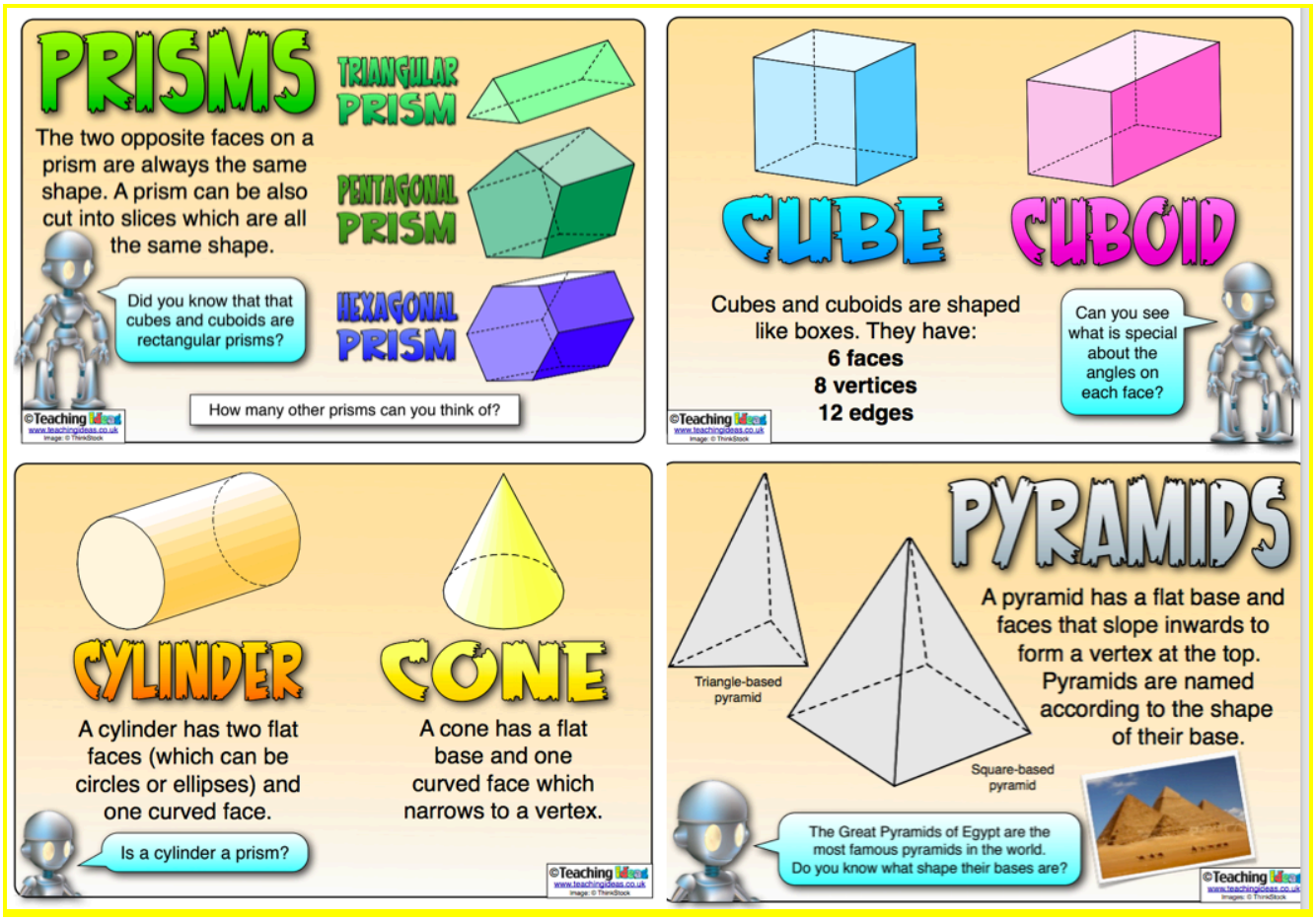
7) $\frac{11}{10} - \frac{8}{10} = \frac{\quad}{\quad}$

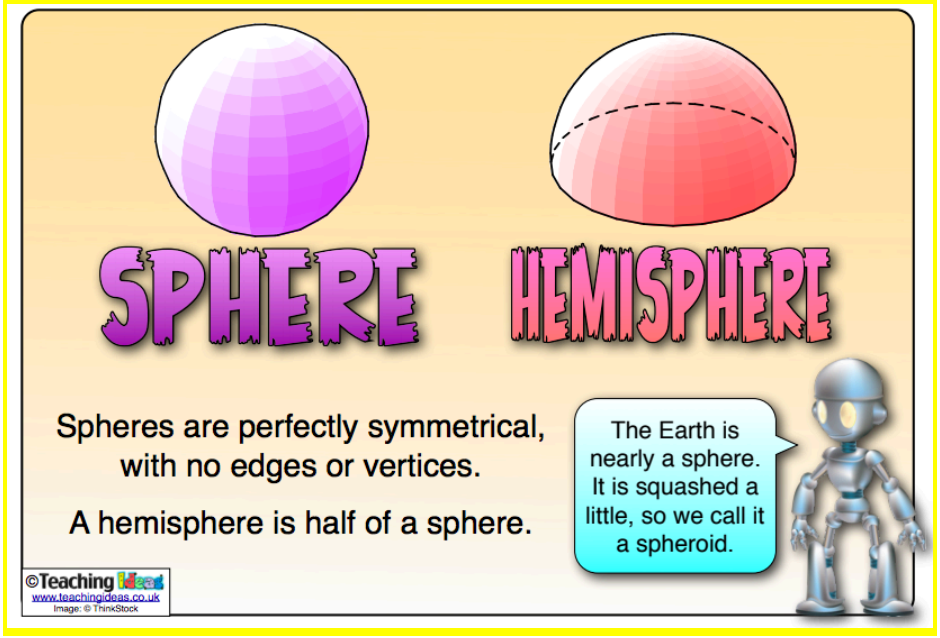
8) $\frac{7}{3} - \frac{2}{3} = \frac{\quad}{\quad}$

9) $\frac{13}{4} - \frac{8}{4} = \frac{\quad}{\quad}$

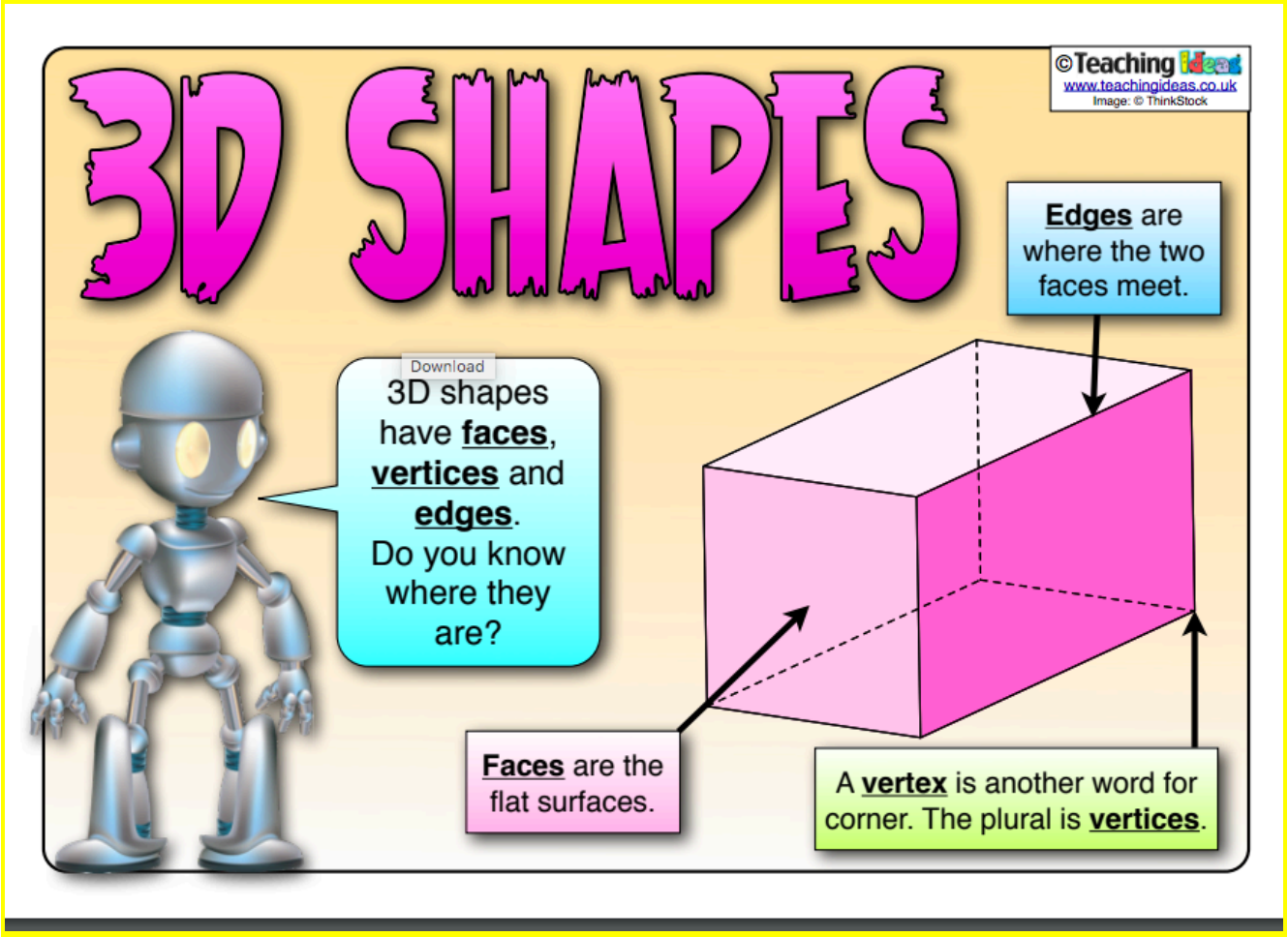
10) $\frac{13}{7} - \frac{4}{7} = \frac{\quad}{\quad}$

T3 Week 4


PRISMS
The two opposite faces on a prism are always the same shape. A prism can be also cut into slices which are all the same shape.
TRIANGULAR PRISM
PENTAGONAL PRISM
HEXAGONAL PRISM
Did you know that that cubes and cuboids are rectangular prisms?
How many other prisms can you think of?
©Teaching Ideas
CUBE
CUBOID
Cubes and cuboids are shaped like boxes. They have:
6 faces
8 vertices
12 edges
Can you see what is special about the angles on each face?
CYLINDER
A cylinder has two flat faces (which can be circles or ellipses) and one curved face.
Is a cylinder a prism?
CONE
A cone has a flat base and one curved face which narrows to a vertex.
PYRAMIDS
A pyramid has a flat base and faces that slope inwards to form a vertex at the top. Pyramids are named according to the shape of their base.
Triangle-based pyramid
Square-based pyramid
The Great Pyramids of Egypt are the most famous pyramids in the world. Do you know what shape their bases are?


SPHERE
HEMISPHERE
Spheres are perfectly symmetrical, with no edges or vertices.
A hemisphere is half of a sphere.
The Earth is nearly a sphere. It is squashed a little, so we call it a spheroid.
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Image: © ThinkStock

T3 Week 4

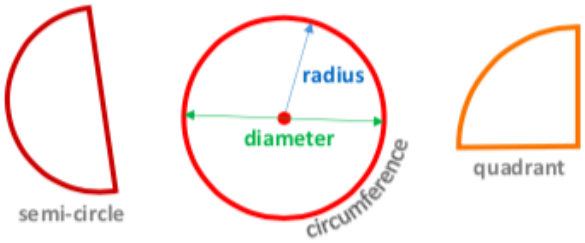


T3 Week 3

Here is a screen Castify on angles and parallel lines.

Screen Castify Angles and Parallel Lines

Circles

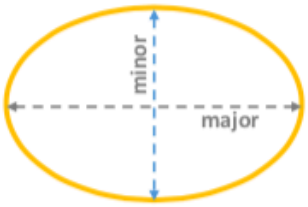


- A **circle** is a shape with all points the same distance from its centre.
- The distance across a circle through the centre is called the **diameter**.
- The **radius** of a circle is the distance from the centre of a circle to any point on the circle.
- The **circumference** is the distance once around the circle.
- Half a circle is called a **semi-circle**.
- Quarter of a circle is called a **quadrant**.


wheel


clock

Ellipses



- An ellipse usually looks like a squashed circle.
- The longest diameter is known as the **Major Axis** which goes from one side of the ellipse, through the centre, to the other side, at the widest part.
- The **Minor Axis** is the shortest diameter (going through the narrowest part of the ellipse).
- When the major and minor axis are equal in length, the ellipse is then a **circle**.
- **Ovals** or egg shapes are similar to ellipses but ovals can sometimes only have one symmetrical axis rather than two.


logo

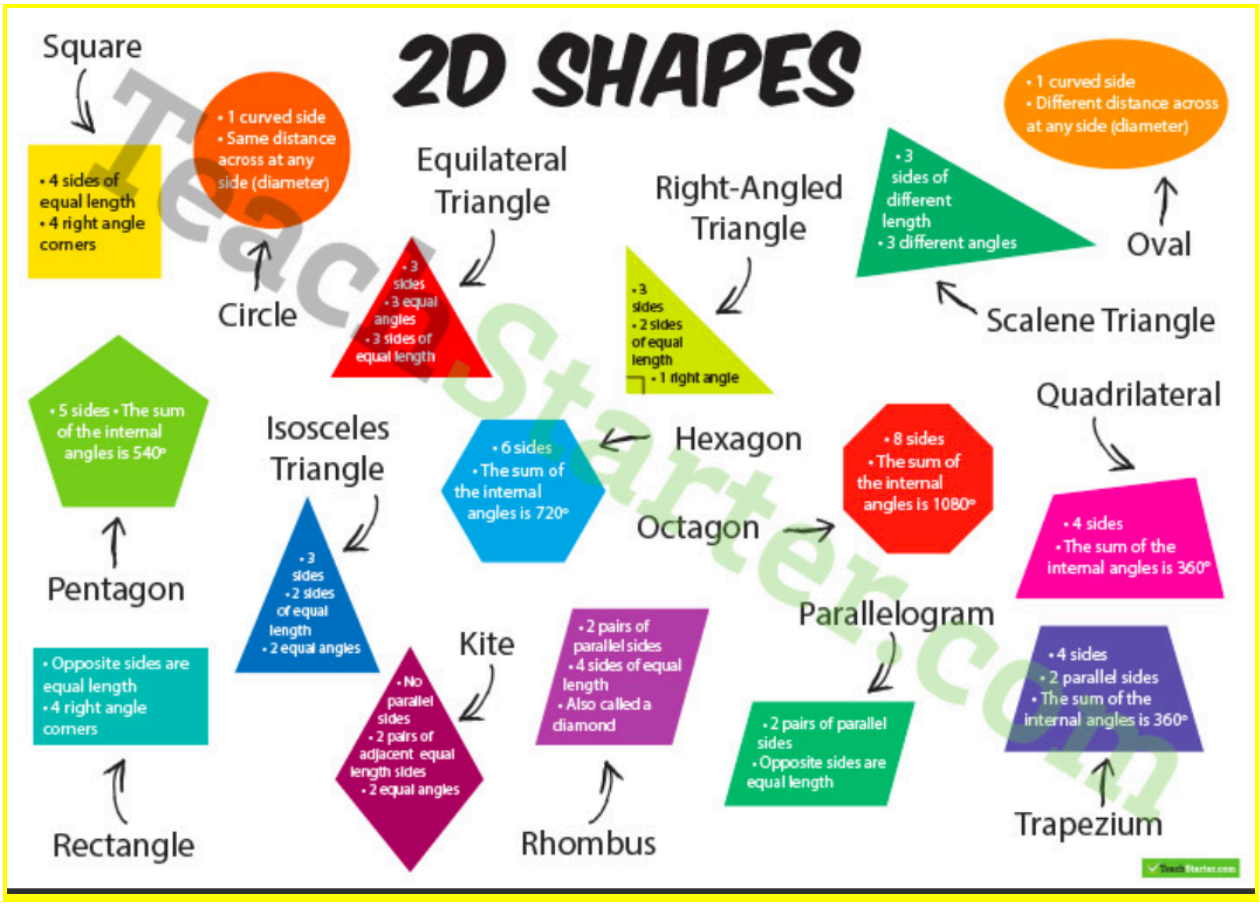

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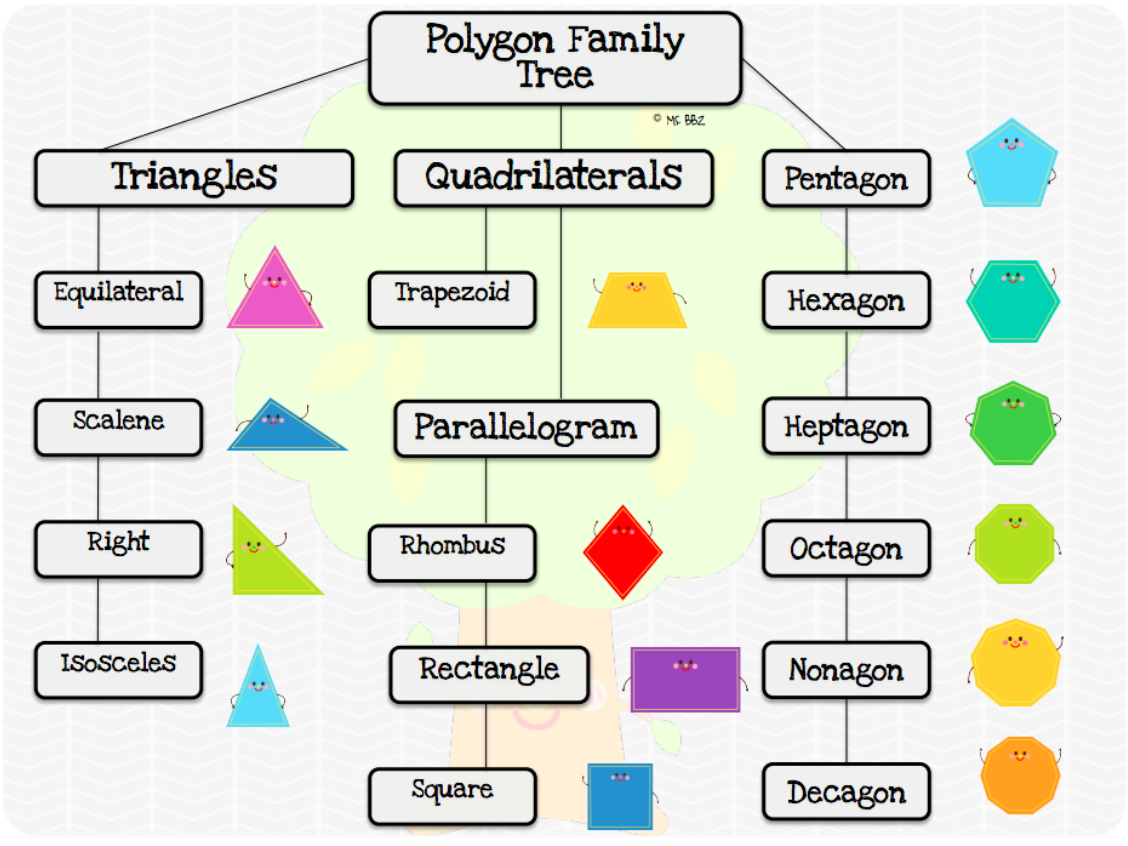
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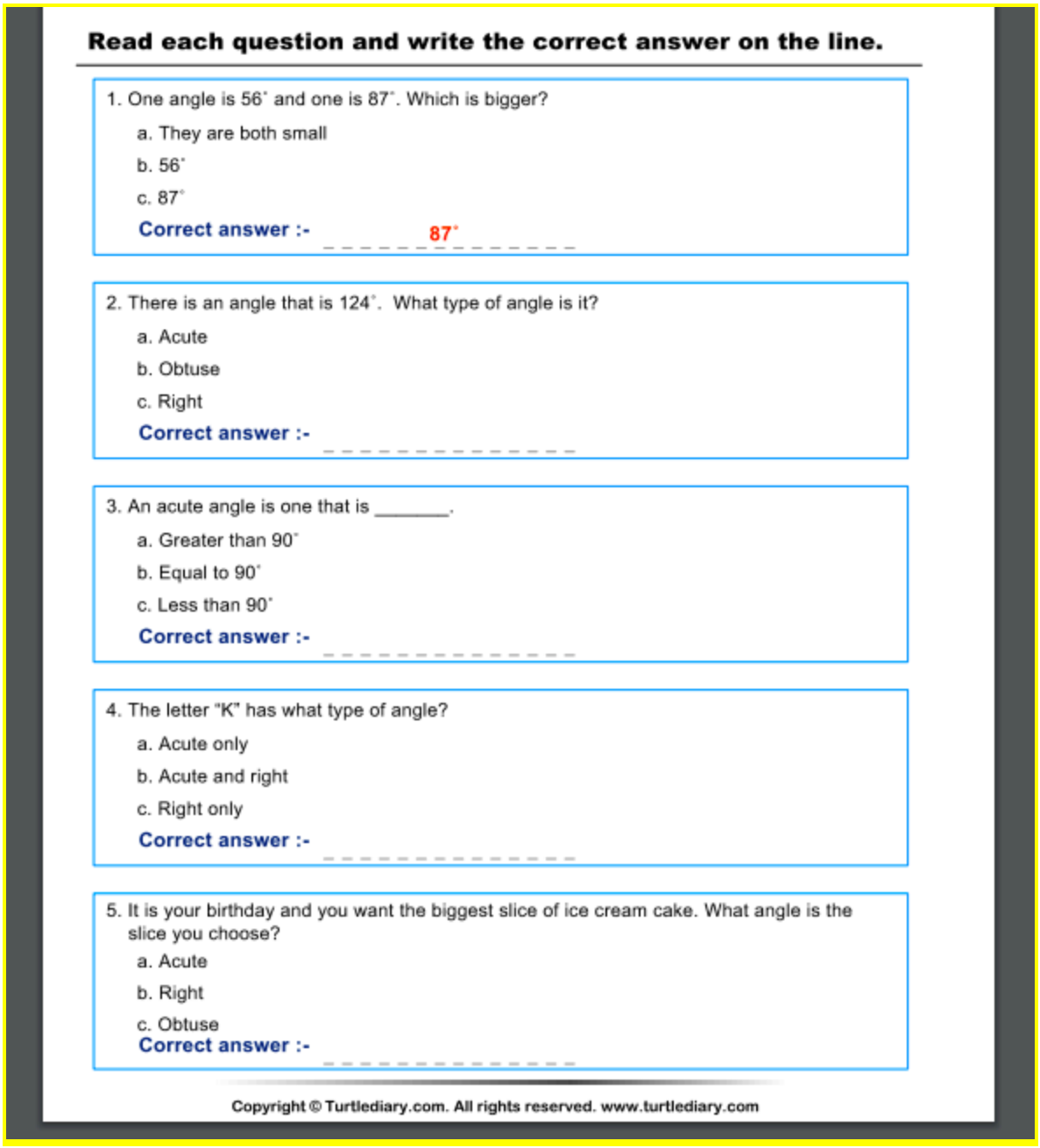
T3 Week 2

Here are some 2D shape posters for reference.


2D SHAPES
Square
• 4 sides of equal length
• 4 right angle corners
Circle
• 1 curved side
• Same distance across at any side (diameter)
Equilateral Triangle
• 3 sides
• 3 equal angles
• 3 sides of equal length
Right-Angled Triangle
• 3 sides
• 2 sides of equal length
• 1 right angle
Scalene Triangle
• 3 sides of different length
• 3 different angles
Oval
• 1 curved side
• Different distance across at any side (diameter)
Pentagon
• 5 sides • The sum of the internal angles is 540°
Isosceles Triangle
• 3 sides
• 2 sides of equal length
• 2 equal angles
Hexagon
• 6 sides
• The sum of the internal angles is 720°
Octagon
• 8 sides
• The sum of the internal angles is 1080°
Quadrilateral
• 4 sides
• The sum of the internal angles is 360°
Rectangle
• Opposite sides are equal length
• 4 right angle corners
Kite
• No parallel sides
• 2 pairs of adjacent equal length sides
• 2 equal angles
Rhombus
• 2 pairs of parallel sides
• 4 sides of equal length
• Also called a diamond
Parallelogram
• 2 pairs of parallel sides
• Opposite sides are equal length
Trapezium
• 4 sides
• 2 parallel sides
• The sum of the internal angles is 360°


Polygon Family Tree
© MS BAZ
Triangles
Equilateral
Scalene
Right
Isosceles
Quadrilaterals
Trapezoid
Parallelogram
Rhombus
Rectangle
Square
Pentagon
Hexagon
Heptagon
Octagon
Nonagon
Decagon

More advanced Angle questions



Read each question and write the correct answer on the line.

1. One angle is 56˚ and one is 87˚. Which is bigger?
   a. They are both small
   b. 56˚
   c. 87˚
   Correct answer :- 87˚

2. There is an angle that is 124˚. What type of angle is it?
   a. Acute
   b. Obtuse
   c. Right
   Correct answer :- _____

3. An acute angle is one that is _____.
   a. Greater than 90˚
   b. Equal to 90˚
   c. Less than 90˚
   Correct answer :- _____

4. The letter "K" has what type of angle?
   a. Acute only
   b. Acute and right
   c. Right only
   Correct answer :- _____

5. It is your birthday and you want the biggest slice of ice cream cake. What angle is the slice you choose?
   a. Acute
   b. Right
   c. Obtuse
   Correct answer :- _____

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1 July

1. Finish questions below first.
   Please write them out.

WALT -Use family of facts to work out these division questions.

1. 33 ÷ 3 = (same as 3 x ? = 33)
2. 27 ÷ 3 =
3. 42 ÷ 6 = (same as 6 x ? = 42)
4. 36 ÷ 6 =
5. 32 ÷ 4 =
6. 72 ÷ 8 =

25 June

WALT -Use multiplication knowledge of 2, 3, 5 10 to answer questions

EXAMPLE
7 X 23 =
7 X 10 = 70 so 7 X 20 = 140
7 X 3 = 21 140 + 21 = 161

1. 6 x 22 =
2. 8 X 18 =
3. 9 X 7=
4. 34 x 5 =
5. 16 X 3 =

Write skip counts in the following in your maths book.
20, 40, …….
25, ……..
50,100,
30, 60….

EXAMPLE:
Work out this equation:
45 X 5 =
METHOD 1
Step 1. 50 X 5 = Skip count in 50, 5 times = 250
Step 2. (Subtract) 5 X 5 = 25
Step 3. 250 - 25 = 225

METHOD 2
Step 1. 40 x 5 = 200
Step 2. 5 x 5 = 25
Step 3. 200 + 25 = 225

Try these:
1. 55 x 3 =
2. 25 x 7 =
3. 27 x 7 =
4. 32 x 6 =
5. 67 x 2 =

17 June

WALT -Use multiplication knowledge to answer word questions

Write equation for each into your maths book and answer.

Multiplication Word Problem Detectives

Name _____



1. There are 12 biscuits in a packet. Jane buys 4 packets for her party. How many biscuits does she have? _____



2. There are 16 fireworks in a box. Sam has 7 boxes. How many fireworks does he have altogether? _____



3. The teacher needs each table to have eight pencils and five pens. There are 5 tables. How many pencils and pens will she need? _____



4. Ben wants to buy 4 lollies for each of his twelve friends. How many lollies will he need to buy? _____



5. Lucy has 36 CDs in each rack. She has 3 racks. How many CDs has she altogether? _____



6. Jay's class are collecting shoes to send to Malawi. His class collected 26 pairs of shoes. How many individual shoes were collected altogether in Year 5? _____



7. It takes Laura 18 minutes to walk to St John's School each day. She walked to school and back every day for 5 days. How many minutes did Laura spend walking to and from school in one week? _____

8. Six children have completed their sticker card. Each card holds 24 stickers. How many stickers has the teacher given out. _____





9. Tom has 15 friends over for his birthday tea. Mum cooks 3 fish fingers each.

How many fish fingers does Tom's mum have to buy for his friends? _____

10 June
FINANCIAL LITERACY

Work in pairs on the FIO dog activity. Write it into your maths books. You may want to use scrap paper first.

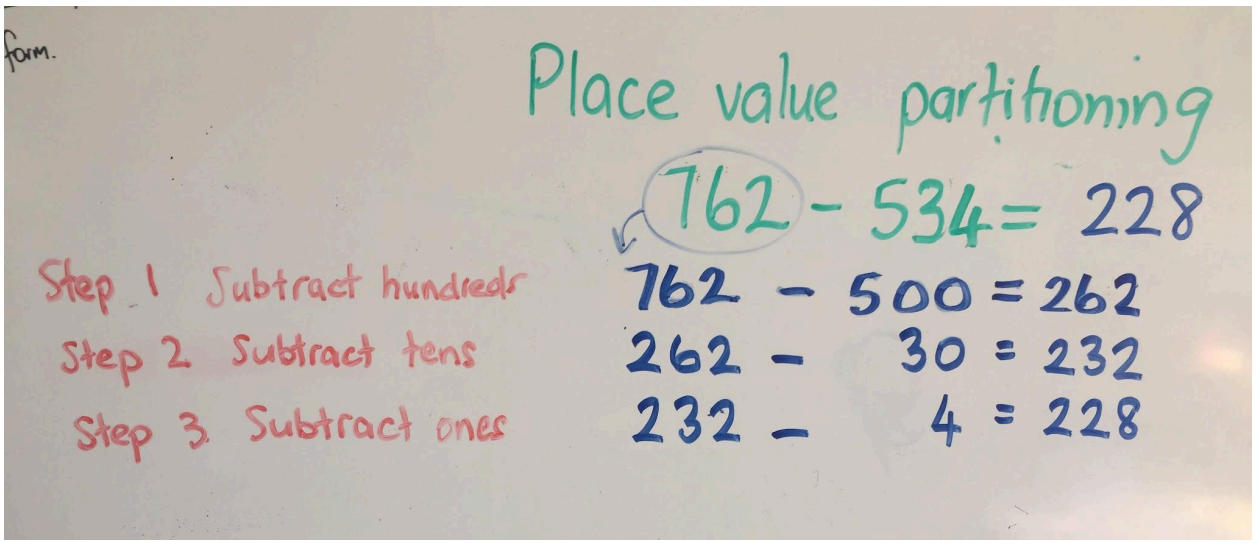
1b. Yearly Costs
Vacinations and check up $55
Worming costs $8 every 3 months
12 months = $32
Flea treatment $110

$55 + $32 + $110

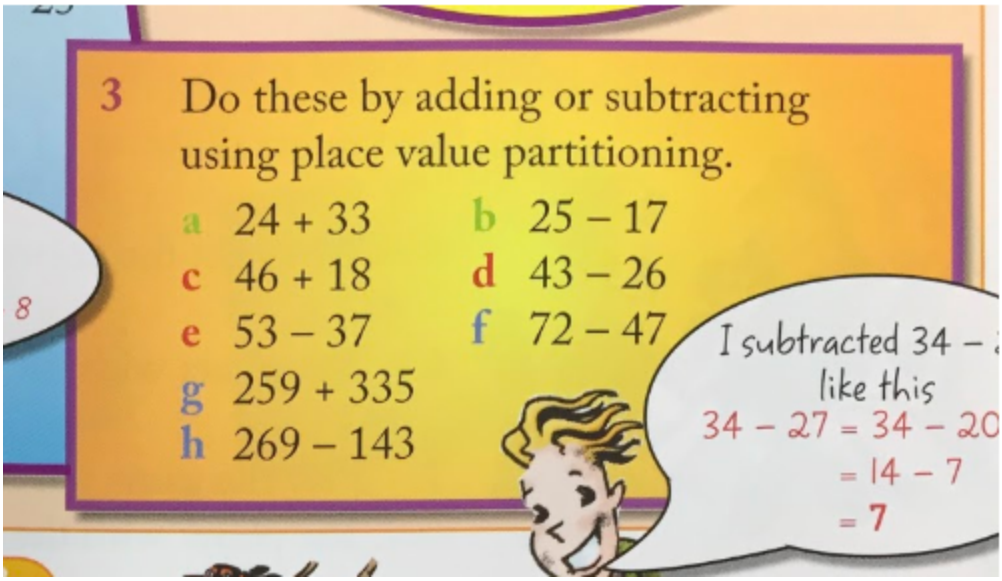
[FIO Money Activities]



Monday and Tuesday 6/7 May



1. TEACHER -Place value partitioning then complete this:



2. Finish Add slideshow
3. Finish Code breaker (see below) write into book.
4. Make a copy of Sub slideshow (below) into your maths folder and complete.

subtraction problems using different strategies and our number knowledge.

Tens frames, counters or a Slavonic abacus.

and after me ..... page 246
Addition facts to decades page 248
Adding to hundreds with tens ..... page 259
Partitioning ..... page 264

Check up

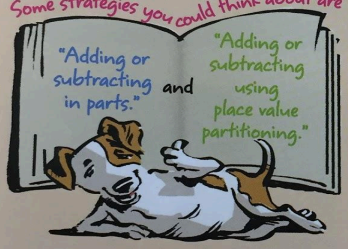
Strategy units 1 to 10 ..... pages 24 to 73

Getting to the hangi

For each question, work out the answer on your own first. Discuss with your partner or group how you found the answer. Decide which way you liked best and why.

Think about which basic facts you could use to help.

Some strategies you could think about are



1 Millee's family drove 47 km to town. They then drove a further 7 km to the hangi. How far did they drive altogether?

2 Sam's family drove 56 km to the service station, then 8 km more to the hangi. How far did they drive altogether?

3 Aunty Moana flew 350 km, then drove another 80 km to the hangi. How far did she travel altogether?

4 Tane drove 67 km to pick up his Uncle Piri and then a further 18 km to the hangi. How far did he travel altogether?

5 On the way home from the hangi in Auckland, Hone saw this road sign. He knew it was 247 km from Kaikohe to Auckland. What number is missing from the sign?



I added 17 + 8 in parts like this.
17 + 3 = 20 add 3 first to make a 10
20 + 5 = 25 add 5 more because 3 + 5 = 8

3 Do these by adding or subtracting using place value partitioning.

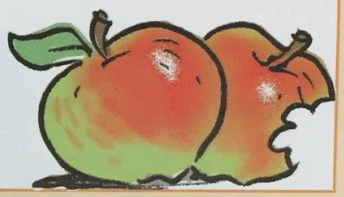
a 24 + 33
b 25 – 17
c 46 + 18
d 43 – 26
e 53 – 37
f 72 – 47
g 259 + 335
h 269 – 143

I subtracted 34 – 27 like this
34 – 27 = 34 – 20
= 14 – 7
= 7

Did you know that...?

Copy this diagram into your book.

46	50	17		153	35	37	37	59		37	72
45	N 43	54	17	15	46	54		45	54		
42	17	35	35	37	126						



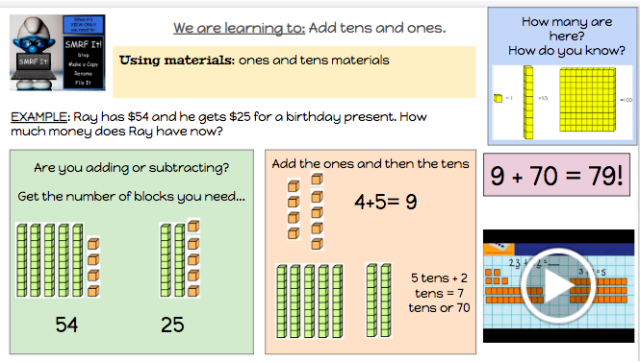
Put the letter beside each question above its answer on your diagram.
The first letter is done for you. Show how you worked out *five* of the letters.

N 34 + 9 = 43
C 33 – 18
B 136 + 17
E 34 + ? = 51
L 43 – 8
T 92 – 46
H 180 + ? = 230
W ? + 157 = 283
O 174 – 137
Y 17 + 25
I ? + 67 = 112
S 9 + 45
D 32 + 27
F 284 + ? = 356

Term 2 Week 1 Monday

1. Make a copy of the slide show below -into your maths folder. T

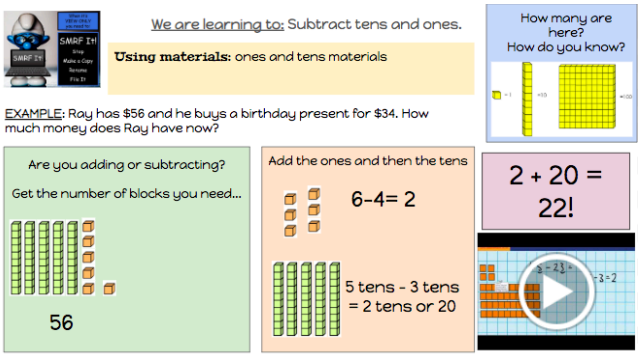
2. Add your name to the start of the title.
3. Then complete the maths.



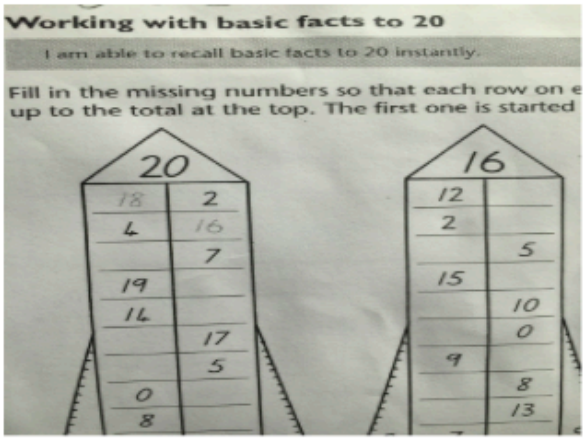
[Link to slideshow]

Term 2 Week 1 Tuesday

1. Make a copy of the slide show below -into your maths folder. T
2. Add your name to the start of the title.
3. Then complete the maths.



[Link to Slideshow]

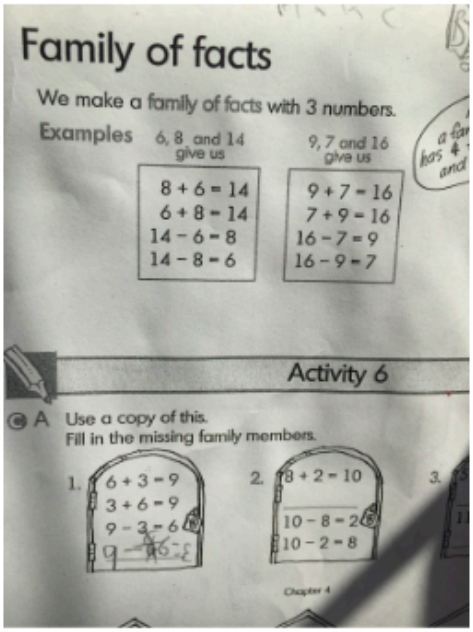


Working with basic facts to 20

I am able to recall basic facts to 20 instantly.

Fill in the missing numbers so that each row on e
up to the total at the top. The first one is started

Finish Basic Facts to 20 in maths books



Family of facts

We make a family of facts with 3 numbers.

Examples

6, 8 and 14 give us

$8 + 6 = 14$
$6 + 8 = 14$
$14 - 6 = 8$
$14 - 8 = 6$

9, 7 and 16 give us

$9 + 7 = 16$
$7 + 9 = 16$
$16 - 7 = 9$
$16 - 9 = 7$

Activity 6

A Use a copy of this.
Fill in the missing family members.

1. $6 + 3 = 9$, $3 + 6 = 9$, $9 - 3 = 6$, $9 - 6 = 3$
2. $8 + 2 = 10$, $10 - 8 = 2$, $10 - 2 = 8$
3.

Chapter 4

Finish Family of Facts activity in maths book