

Einsteins Modelling Book Maths

T4 W4

of the jumps you want to take.
e.g. $423 + 228 = 651$

Draw a number line to show how to find the answer to these add sums.

1) $223 + 242 =$	
2) $313 + 233 =$	
3) $604 + 321 =$	
4) $587 + 332 =$	
5) $420 + 197 =$	
6) $649 + 310 =$	
7) $543 + 409 =$	

Now try this sum: $688 + 365 =$

400 x 566 Teach My Kids www.teachmykids.co.uk

T4 Week 1

34 Using Fractions

A Food for Thought

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

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

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

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 |

Easy Fraction Circles

$\frac{1}{2}$ Fraction Circle

1	10	4	16
2	14	5	18
3	24	6	12

$\frac{1}{3}$ Fraction Circle

1	21	4	9
2	12	5	24
3	15	6	18

$\frac{1}{4}$ Fraction Circle

1	16	4	12
2	20	5	40
3	8	6	32

$\frac{1}{5}$ Fraction Circle

1	15	4	45
2	25	5	35
3	30	6	20

$\frac{1}{10}$ Fraction Circle

1	10	4	70
2	100	5	90
3	50	6	40

Harder Fraction Circles

$\frac{1}{2}$ Fraction Circle

1	50	4	120
2	32	5	84
3	200	6	46

$\frac{1}{3}$ Fraction Circle

1	33	4	120
2	36	5	60
3	90	6	150

$\frac{1}{4}$ Fraction Circle

1	200	4	120
2	100	5	80
3	400	6	160

$\frac{1}{5}$ Fraction Circle

1	60	4	500
2	100	5	55
3	150	6	45

$\frac{1}{10}$ Fraction Circle

1	110	4	1000
2	200	5	350
3	170	6	800

RATIOS AND PROPORTIONS

Fraction of game

Cards numbered 2, 3, 4, 5 and 10, a die, the Fraction Circles on the next page.

- Roll the die.
The first person to get a 2 starts.
- Shuffle the cards and place face them down on the table. Then take turns to pick up a card. Write down the number. Replace your card at the bottom of the pile
- Make a fraction with 1 as the numerator (top number) and the number you wrote down as the denominator (bottom number).
Example Sam wrote down the number 4. He made the fraction $\frac{1}{4}$.
- Find your Fraction Circle from the circles on the next page.
Example Sam's fraction is $\frac{1}{4}$ so he finds the circle called " $\frac{1}{4}$ Fraction Circle".
- Roll the die. In your Fraction Circle, find the number that you rolled. Write down the number that is next to the number you rolled.
Example Sam rolled a 2. The number in his Fraction Circle that is next to the number 2 is 20.
- Find the fraction of the number you wrote down.
Example Sam had to find $\frac{1}{4}$ of 20.
I know $\frac{1}{2}$ of 20 = 10. So I can work out what $\frac{1}{4}$ of 20 = 5.
- Ask your team mates to check your answer and if it is correct take one point.
- The person with the most points after 10 rounds is the winner.

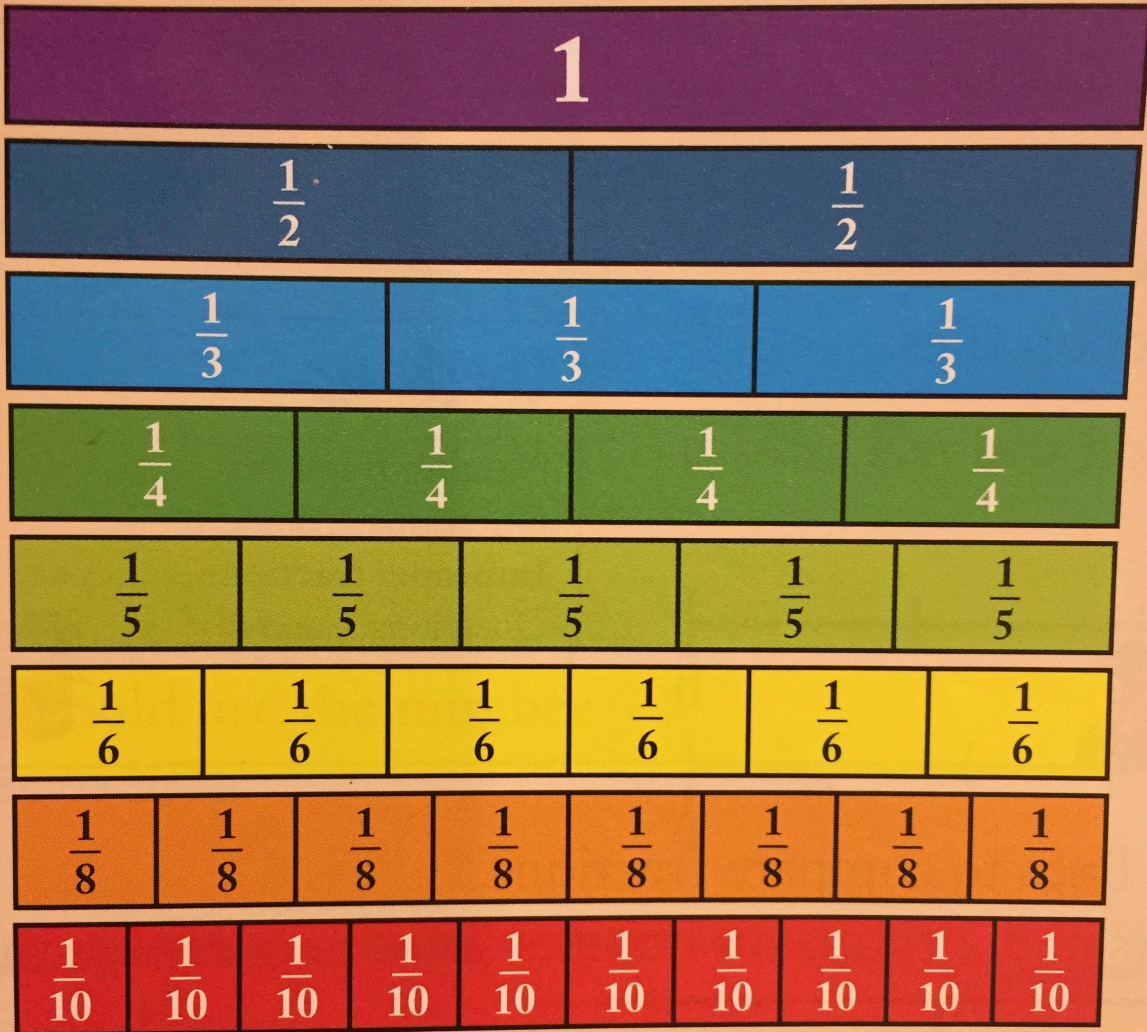
158 RATIOS AND PROPORTIONS

Find a unit fraction of a set using addition facts, particularly 20 and 100.

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

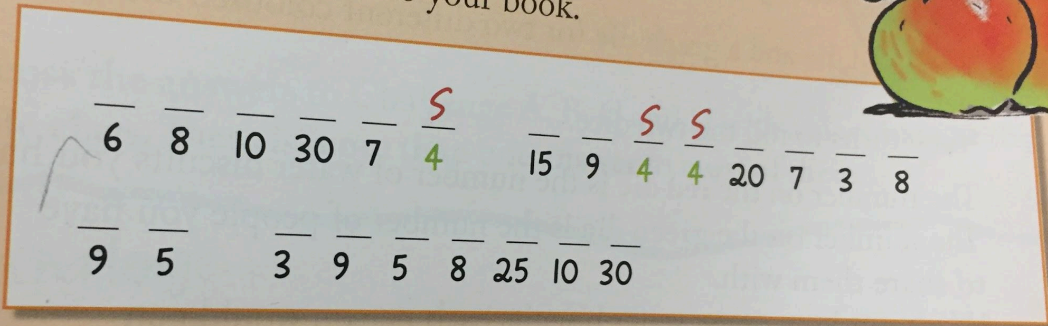
Fractions wall pg 175 and code breaker activity pg 188

HINT -Divide the number by the denominator.

Practice at finding a "fraction of"

1 Did you know ...?

Copy this diagram into your book.

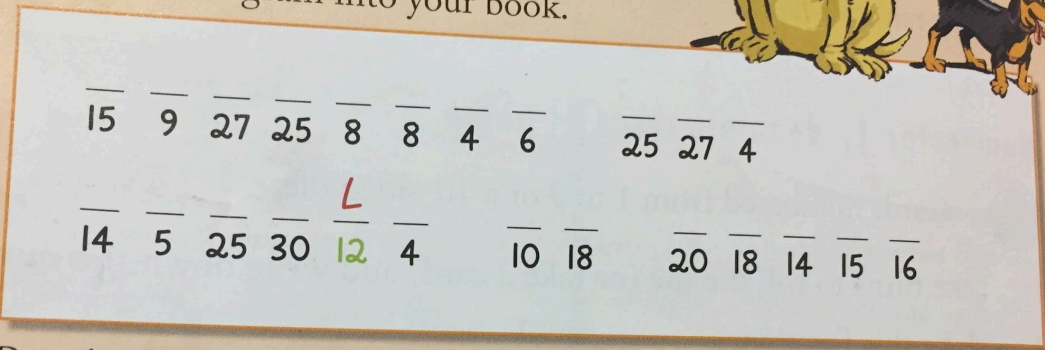


Put the letter beside each question above its answer.
The first one has been done for you.

- | | | | | | | | |
|---|-------------------------|---|---------------------|---|---------------------|---|----------------------|
| 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 |

2 Did you know ...?

Copy this diagram into your book.



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 | G $\frac{1}{2}$ of 30 | S $\frac{2}{3}$ of 9 |
| N $\frac{1}{10}$ of 50 | I $\frac{1}{4}$ of 36 | F $\frac{2}{5}$ of 20 |
| H $\frac{2}{3}$ of 24 | E $\frac{2}{10}$ of 20 | B $\frac{3}{4}$ of 40 |
| A $\frac{1}{4}$ of 100 | T $\frac{1}{3}$ of 30 | O $\frac{3}{4}$ of 24 |
| C $\frac{4}{10}$ of 50 | R $\frac{3}{4}$ of 36 | U $\frac{1}{2}$ of 28 |

L $\frac{1}{4}$ of 16 = 4
 $\frac{3}{4}$ of 16 = 3×4
 = 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!

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

$$3) \frac{1}{5} + \frac{2}{5} = \frac{\quad}{5} \quad 4) \frac{2}{6} + \frac{1}{6} = \frac{\quad}{6}$$

$$5) \frac{1}{8} + \frac{1}{8} = \frac{\quad}{8} \quad 6) \frac{2}{5} + \frac{2}{5} = \frac{\quad}{5}$$

$$7) \frac{1}{9} + \frac{2}{9} = \frac{\quad}{9} \quad 8) \frac{3}{10} + \frac{1}{10} = \frac{\quad}{10}$$

$$9) \frac{1}{3} + \frac{1}{3} = \frac{\quad}{3} \quad 10) \frac{2}{7} + \frac{2}{7} = \frac{\quad}{7}$$

All the fractions have the same denominator.

Subtract the second numerator from the first, keeping the denominator the same!

$$1) \frac{7}{5} - \frac{3}{5} = \frac{\quad}{5} \quad 2) \frac{6}{7} - \frac{2}{7} = \frac{\quad}{7}$$

$$3) \frac{7}{9} - \frac{3}{9} = \frac{\quad}{9} \quad 4) \frac{10}{4} - \frac{3}{4} = \frac{\quad}{4}$$

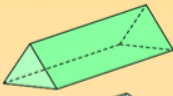
$$5) \frac{8}{6} - \frac{3}{6} = \frac{\quad}{6} \quad 6) \frac{12}{8} - \frac{5}{8} = \frac{\quad}{8}$$

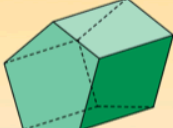
$$7) \frac{11}{10} - \frac{8}{10} = \frac{\quad}{10} \quad 8) \frac{7}{3} - \frac{2}{3} = \frac{\quad}{3}$$

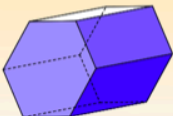
$$9) \frac{13}{4} - \frac{8}{4} = \frac{\quad}{4} \quad 10) \frac{13}{7} - \frac{4}{7} = \frac{\quad}{7}$$

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 

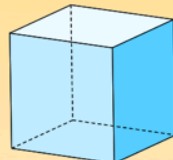
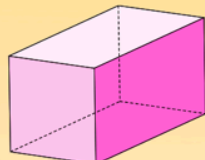
PENTAGONAL PRISM 

HEXAGONAL PRISM 

Did you know that that cubes and cuboids are rectangular prisms?

How many other prisms can you think of?

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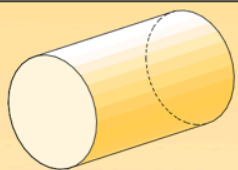

CUBE CUBOID

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?

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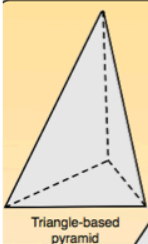
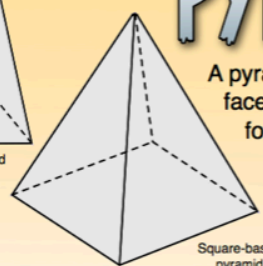
CYLINDER CONE

A cylinder has two flat faces (which can be circles or ellipses) and one curved face.

A cone has a flat base and one curved face which narrows to a vertex.

Is a cylinder a prism?

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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.


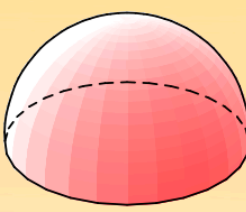
Triangle-based pyramid

Square-based pyramid

The Great Pyramids of Egypt are the most famous pyramids in the world. Do you know what shape their bases are?



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SPHERE HEMISPHERE

Spheres are perfectly symmetrical, with no edges or vertices.

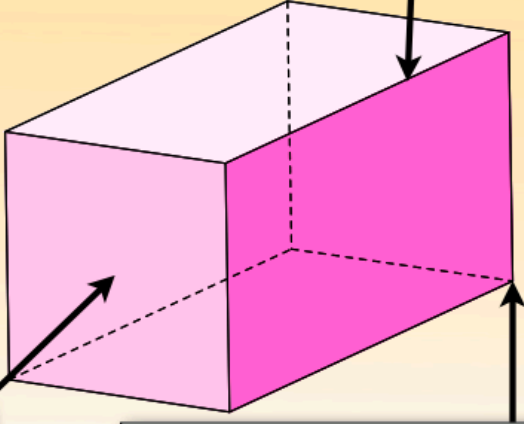
A hemisphere is half of a sphere.

The Earth is nearly a sphere. It is squashed a little, so we call it a spheroid.

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3D SHAPES

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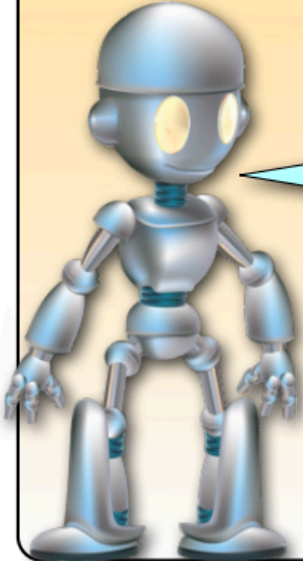


Edges are where the two faces meet.

Faces are the flat surfaces.

A **vertex** is another word for corner. The plural is **vertices**.

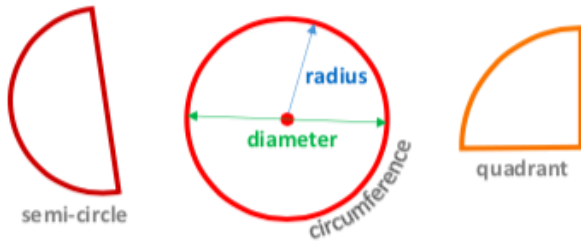
Download
3D shapes have **faces**, **vertices** and **edges**.
Do you know where they are?



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**.



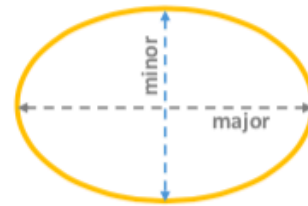
wheel



clock

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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



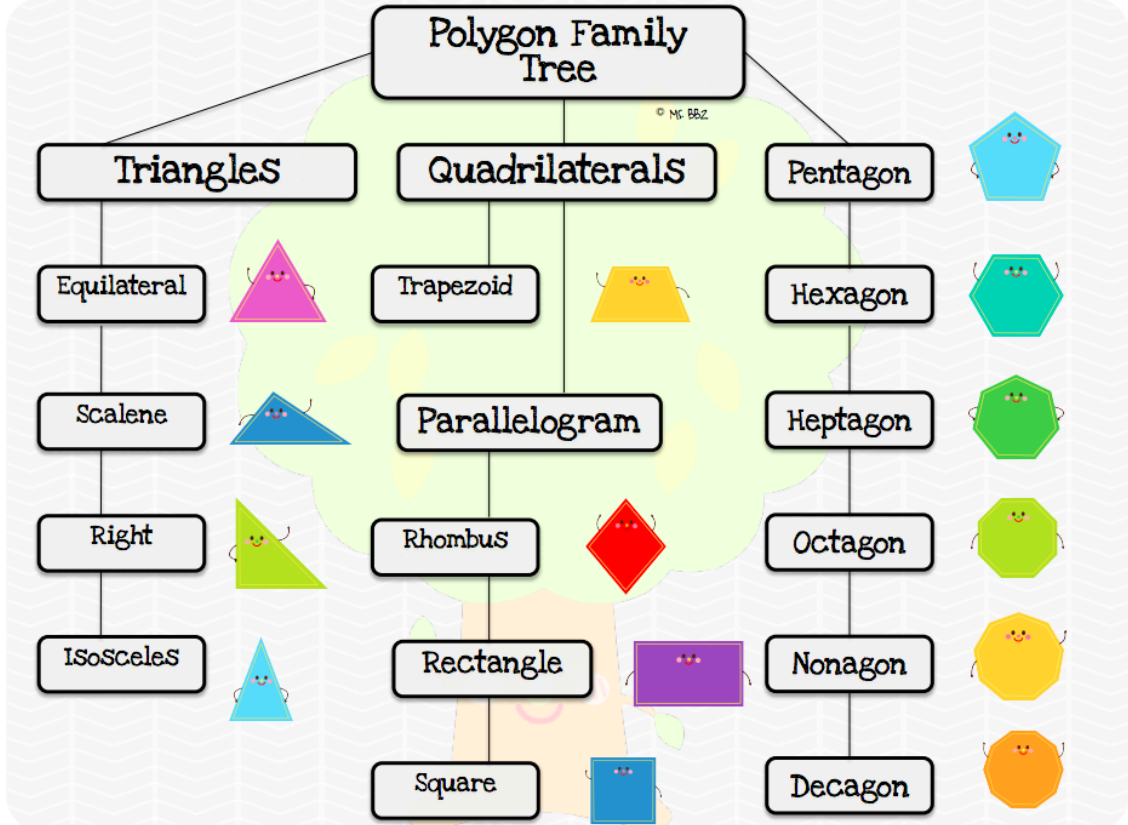
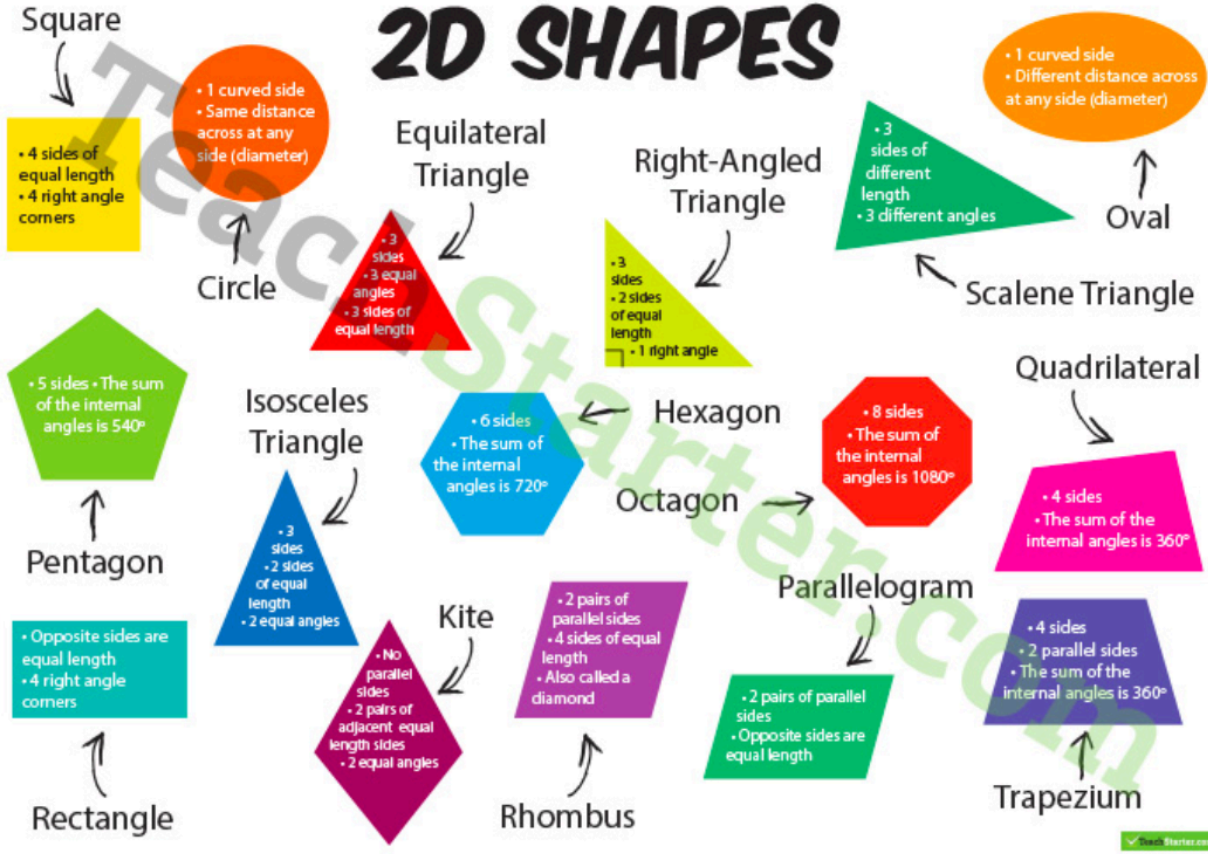
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T3 Week 2

Here are some 2D shape posters for reference.

2D SHAPES



25 June

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

EXAMPLE

$$7 \times 23 =$$

$$7 \times 10 = 70 \text{ so } 7 \times 20 = 140$$

$$7 \times 3 = 21 \quad 140 + 21 = 161$$

1. $6 \times 22 =$
2. $8 \times 18 =$
3. $9 \times 7 =$
4. $34 \times 5 =$
5. $16 \times 3 =$

Write skip counts in the following in your maths book.

20, 40,

25,

50, 100,

30, 60....

EXAMPLE:

Work out this equation:

$$45 \times 5 =$$

METHOD 1

Step 1. $50 \times 5 =$ Skip count in 50, 5 times = 250

Step 2. (Subtract) $5 \times 5 = 25$

Step 3. $250 - 25 = 225$

METHOD 2

Step 1. $40 \times 5 = 200$

Step 2. $5 \times 5 = 25$

Step 3. $200 + 25 = 225$

Try these:

1. $55 \times 3 =$
2. $25 \times 7 =$
3. $27 \times 7 =$
4. $32 \times 6 =$
5. $67 \times 2 =$

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

Financial Literacy: The Real Cost of Pets, Levels 2-3

Doggone Expensive!

Key financial idea • Before making a decision to buy something, consider all the costs.

You need • a calculator (optional) • a classmate

Activity

Tom and Perry's story
Our uncle offered to give us a puppy. We thought it was a great idea at first, but then we started to wonder ...

What if he gets sick and needs to go to the vet? And he'll need to be microchipped and vaccinated.

How much would it cost to feed him? He'll grow quite big ...

Tom and Perry go to see the local vet.

Monday and Tuesday 6/7 May

form.

Place value partitioning

$$762 - 534 = 228$$

Step 1 Subtract hundreds $762 - 500 = 262$

Step 2 Subtract tens $262 - 30 = 232$

Step 3 Subtract ones $232 - 4 = 228$

1. TEACHER -Place value partitioning then complete this:

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
 $34 - 27 = 34 - 20$
 $= 14 - 7$
 $= 7$

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.

... comes 1, 10 or 100 before page 244
and after me page 246
Addition facts to decades, page 246
Adding to hundreds with tens page 259
Partitioning page 264

Check up

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

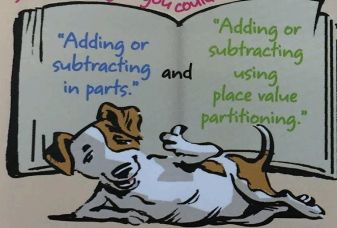


Getting to the hangi

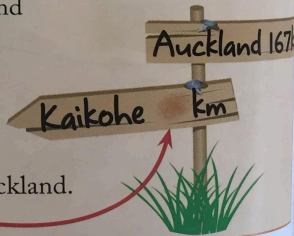
For each question, work out the answer on your own first. Discuss with your partner or group how you found the answer. Decide which way you liked best and why.

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 $269 - 143$

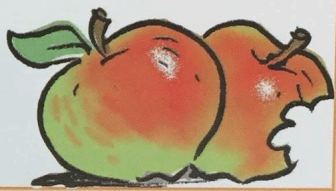
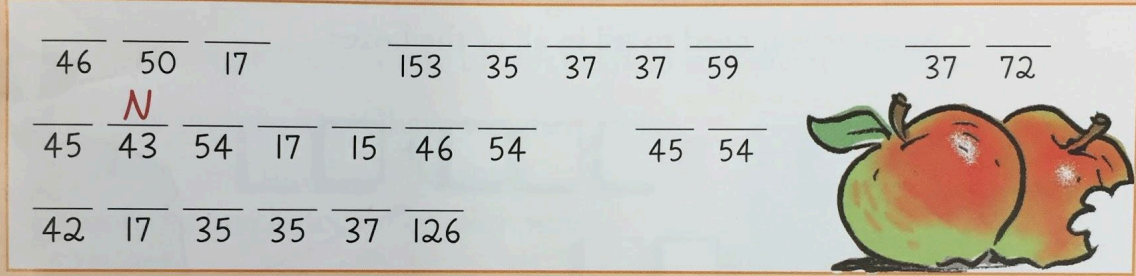


I subtracted $34 - 27$ like this
 $34 - 27 = 34 - 20$
 $= 14 - 7$
 $= 7$

Did you know that...?



Copy this diagram into your book.



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

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.

We are learning to: Add tens and ones.

Using materials: ones and tens materials

EXAMPLE: Ray has \$54 and he gets \$25 for a birthday present. How much money does Ray have now?

Are you adding or subtracting?
Get the number of blocks you need...

54 25

Add the ones and then the tens

$4 + 5 = 9$

5 tens + 2 tens = 7 tens or 70

How many are here?
How do you know?

$9 + 70 = 79!$

[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.

We are learning to: Subtract tens and ones.

Using materials: ones and tens materials

EXAMPLE: Ray has \$56 and he buys a birthday present for \$34. How much money does Ray have now?

Are you adding or subtracting?
Get the number of blocks you need...

56

Add the ones and then the tens

$6 - 4 = 2$

5 tens - 3 tens = 2 tens or 20

How many are here?
How do you know?

$2 + 20 = 22!$

[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

$8 + 6 = 14$	$9 + 7 = 16$
$6 + 8 = 14$	$7 + 9 = 16$
$14 - 6 = 8$	$16 - 7 = 9$
$14 - 8 = 6$	$16 - 9 = 7$

9, 7 and 16 give us

Activity 6

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