Home Learning: Year 6 Maths

We have set out each week's learning as a series of suggested daily activities. However, the time may look very different for each family. Building in time to look after each other, be physical, creative and relax is as important as completing the set activities. You need to decide what works for you and your family. You could do more of the activities on one day and fewer on another, or you may find it helpful to have a more structured approach. It may help to give clear times for doing activities and clear times for breaks. You will also notice that some of the science, history and DT activities are the same and therefore can be done as a family.

Year 6	Day 1	Day 2	Day 3	Day 4	Day 5
Factual Fluency	https://uk.ixl.com/math/year-6/measure-angles-with-a-protractorMeasure angles using a protractor	https://uk.ixl.com/math/year-6/find-a-missing-angle-vertical-angles Find missing angles(1)	https://uk.ixl.com/math/year-6/find-a-missing-angle-adjacent-angles Find missing angles(2)	https://uk.ixl.com/math/year-6/find-a-missing-angle-supplementary-angles Find missing angles(3)	https://uk.ixl.com/math/year-6/find-a-missing-angle-vertical-adjacent-and-supplementary-angles Find missing angles(4)
Four Days of Reasoning (Monday-Thursday)	Summer Term Week 5(w/c 18th May) https://whiterosemaths.com/homelearning/year-6/ Extension Tasks are below for pupils who normally work with Mrs T OR who have **competed** the daily task and feel like a challenge	Click onto the link each day. There is a video to watch for each day and then activities to complete. White Rose is an excellent resource and one often used by teachers in our schools. As you support your child, you will see that it presents concepts clearly and incrementally. The lessons will start very simply – however, we do not recommend that you race ahead; spend time on the straightforward before moving onto more complex, abstract ideas. If you feel your child needs greater challenge click onto this link https://whiterosemaths.com/homelearning/year-7/ If your child struggles with maths, they could work on the learning set for year groups lower down the school. Worksheets and answers can be found below.			
Friday	Revise aspects of this week's learning that you are not sure of sure of. You can simply repeat a lesson or revisit questions and redo.				

Home Learning: Year 6 English

Year Six	Day 1	Day 2	Day 3	Day 4	Day 5
Reading	Make sure you have some quiet time for daily reading of your own book. Record your reading in your Reading Record as you normally do. Check out https://www.ccht.rbkc.sch.uk/learning-at-home/story-time/ for some on-line stories and some good book recommendations.				
Writing	**LO: Read and reflect upon famous speeches** Watch this clip explaining about a famous speech: https://www.bbc.co.uk/programmes/p00wwkvn Now watch this second clip about the language in the speech. Make notes or a mind map about the key techniques that Martin Luther King uses to 'hook' in his audience.Benjamin Zephaniah talks about repetition, biblical references, contrasting pairs, simple languages. https://www.bbc.co.uk/programmes/p00wwq4t Write a short summary of what Martin Luther King is saying to the American People. It is possible for you to do this without listening to the whole speech.	**LO: Practise oracy (reading a speech)** Read *Two Famous Speeches – see below)* and answer the questions. Challenge yourself to read one of the speeches in the next set: *Two More Speeches* and to answer the questions on that speech as well. **Practise reading a speech out loud.** Pick one of the speeches and practise reading it out loud. Practise until your words flow and you are able to speak really expressively. *Well done! Share read the speech that you have chosen to a grown-up. You can check your answers to the questions too at the back of this pack.*	**LO: Listen, relect and respond to a speech.** Read this webpage about Malala Yousafzai www.bbc.co.uk/newsround/46865195 Make notes on *Five Important Facts* about the five most important things that you learn about her. **Read and reflect on a speech** Watch the first minute of Malala's speech at the United Nations. https://www.malala.org/newsroom/archive/malala-un-speech Read *Malala's Speech*. Think about the *Reflection Prompts*. Write answers on *Reflection Notes*. (You may find *Persuasive Features* helpful – see below)	**LO: Write a letter** Write to Malala about her speech. You might like to write a plan or draft first. **Paragraph 1**: Introduce yourself and explain why you are writing to her.Tell her a little about yourself. Don't' forget to use the layout of a letter ***eg Write your own address in the top corner, then the date, Dear Malala etc (see example of a letter to Greta Thunberg below)*** **Paragraph 2:** Explain what you liked and noticed about her speech. **Paragraph 3**: Ask her some questions – about her speech and maybe about what she is going to to do next. **Paragraph 4:** Short 'sign of' ***eg 'Thank you for taking the time for reading my letter; I really look forward to hearing of your next adventure/speech ….*** *Well done! Share your writing with a grown-up. Show them Malala's Speech and the most important things that you noticed about it.*	**LO: Learn spellings** See below for the spellings set by Ms Ross last week. Your task was to LEARN the spellings using a method that suits you. Today, you can ask an adult to test you in these spellings. Once marked, send into your teacher on ClassDojo. Good luck!

Home Learning: Year 6 Curriculum

Day 1	Day 2	Day 3	Day 4	Day 5
Geography	Science	Art	RE	History
LO: compare biomes How are biomes different? ● Click on this link https://media.hhmi.org/biointeractive/biomeviewer_web/index.html to learn about different biomes in the Biome Viewer by turning the globe and selecting the coloured box to explain the conditions. ● Find and investigate the following places (use the search tool in the Biome Viewer): UK; Manaus in Brazil; Gobi in China / Mongolia, Nunavut in Canada; Livingstone in Zambia. ● Use the table below to compare similarities and differences between the 5 main biomes.	**LO: explore scientific classification** ● Sort the living things from the resources below according to those you'd find in our local area and those you wouldn't. ● Watch the classification video. https://www.bbc.co.uk/bitesize/topics/zn22pv4/articles/z3nbcwx ● Read the information on classification; http://www.oum.ox.ac.uk/thezone/animals/animalid/classify.htmc lick on each level of the squirrel's classification and answer the questions at the bottom of the webpage.	**Jasper Johns Printing** You will need: paper, pencils, paint or colouring pencils or felt tips, scissors, glue. Have a look at the Jasper Johns images below – see how he makes repeated patterns in his printing. • Using a found object (support below) print and cover two pieces of paper each with a different pattern. Use the same colour of paint for each one. • On one piece of paper, you will draw and cut out a number – see sheet below for template ideas. On the second piece of paper, you will trace around your number and then lift it from the paper and colour the traced image using coloured pencils/chalk/oil pastels. • Smudge the edges of the coloured in traced image and then stick your number back onto the second piece of paper.	Ascension Day in the Christian calendar is on Thursday 21st May this year. https://request.org.uk/restart/2017/07/21/bible-quest-the-ascension/ How do you think you would have felt if you had watched Jesus returning to heaven? What questions do you think you would have had? Do not forget to blow some bubbles to symbolise Jesus' ascent into heaven, as we do every year at school. You could also use bright colours to colour in the attached stained glass window or draw your own.	**LO: examine discoveries from the Stone and Iron Age** ● Look at the following artefacts in this link. https://www.museumoflondon.org.uk/Resources/interactives/Stone-Age-to-Iron-Age-Explorer/ ● Design a museum leaflet that explains about one object from each time period and share it with someone in your house.
***Everything is Interesting* – are you ready for a challenge?**				

Day 1

Multiply by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O •	Tth	Hth
			●●	●● ●	

a) 2.3 × 10 = ☐

When the number is multiplied by 10 the counters move ☐ place to the left.

b) 2.3 × 100 = ☐

When the number is multiplied by 100 the counters move ☐ places to the left.

c) 2.3 × 1,000 = ☐

When the number is multiplied by 1,000 the counters move ☐ places to the left.

2 Complete the diagram.

3.06 → × 10 → ☐ → × 10 → ☐

3 **a)** Draw counters on the place value charts to represent each calculation.

4.4 × 1

Th	H	T	O •	Tth	Hth

4.4 × 10

Th	H	T	O •	Tth	Hth

4.4 × 100

Th	H	T	O •	Tth	Hth

4.4 × 1,000

Th	H	T	O •	Tth	Hth

b) Complete the calculations.

4.4 × 1 = ☐

4.4 × 10 = ☐

4.4 × 100 = ☐

4.4 × 1,000 = ☐

What do you notice?

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4 Complete the calculations.

a) 13.44 × 10 = ☐

b) 41.4 × 100 = ☐

c) 0.415 × 1,000 = ☐

d) 4.4 × ☐ = 4,400

e) ☐ = 1.03 × 100

f) 30.44 = ☐ × 10

5 Complete the diagrams.

7.039 → (× 10) → ☐ → (× 10) → ☐ → (× 10) → ☐

7.039 → (× 100) → ☐ → (× 10) → ☐

7.039 → (× 1,000) → ☐

What do you notice? Why does this happen?

_____

_____

_____

_____

6 Write >, < or = to compare the number sentences.

1.4 × 10 × 10 × 10 ◯ 1.4 × 1,000

1.4 × 10 × 100 ◯ 1.4 × 1,000

1.4 × 10 × 10 ◯ 1.4 × 1,000

1.4 × 10 × 2 ◯ 1.4 × 100

7 Kim is calculating 14.3 × 200

She writes this as her answer.

14.3 × 200 = 28.600

Explain Kim's mistake.

_____

_____

_____

8 Use the cards to complete the calculation.

You can use each card more than once.

× 1	× 10	× 100	× 1,000

0.002 ☐ ☐ ☐ = 2,000

How many ways is it possible to complete this calculation?

Talk about it with a partner.

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Divide by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
	●	● ● ● ●			

a) 140 ÷ 10 = ☐

When the number is divided by 10 the counters move ☐ place to the right.

b) 140 ÷ 100 = ☐

When the number is divided by 100 the counters move ☐ places to the right.

c) 140 ÷ 1,000 = ☐

When the number is divided by 1,000 the counters move ☐ places to the right.

2 Complete the diagram.

43 → ÷ 10 → ☐ → ÷ 10 → ☐

3 **a)** Draw counters to represent the calculations.

123 ÷ 1

H	T	O	Tth	Hth	Thth

123 ÷ 10

H	T	O	Tth	Hth	Thth

123 ÷ 100

H	T	O	Tth	Hth	Thth

123 ÷ 1,000

H	T	O	Tth	Hth	Thth

b) Complete the calculations.

123 ÷ 1 = ☐

123 ÷ 10 = ☐

123 ÷ 100 = ☐

123 ÷ 1,000 = ☐

What do you notice?

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4 Complete the calculations.

a) 16 ÷ 10 = ☐

b) 43.4 ÷ 100 = ☐

c) 614 ÷ 1,000 = ☐

d) 332 ÷ ☐ = 0.332

e) 2.4 ÷ 200 = ☐

f) 5.09 = ☐ ÷ 20

5 Complete the diagrams.

314 → ÷ 10 → ☐ → ÷ 10 → ☐ → ÷ 10 → ☐

314 → ÷ 100 → ☐ → ÷ 10 → ☐

314 → ÷ 1,000 → ☐

What do you notice? Why does this happen?

_____

_____

_____

_____

6 Write >, < or = to compare the number sentences.

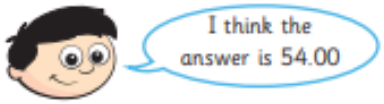
5,400 ÷ 10 ÷ 10 ÷ 10 ◯ 5,400 ÷ 1,000

60 ÷ 100 ÷ 10 ◯ 600 ÷ 100

5.7 ÷ 10 ◯ 57 ÷ 100

5,601 ÷ 1,000 ◯ 5.601 ÷ 10

7 Dexter is solving the calculation 5,400 ÷ 100



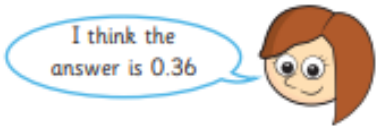
Is Dexter correct? _____

Explain your reasoning.

_____

_____

8 Rosie is solving the calculation 3,600 ÷ 200



Is Rosie correct? _____

Explain your reasoning.

_____

_____

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Day 2

Multiply decimals by integers

1 Use place value counters to solve the calculations.

a) 3.2 × 3 = ☐

Ones	Tenths
1 1 1	0.1 0.1
1 1 1	0.1 0.1
1 1 1	0.1 0.1

b) 4.6 × 2 = ☐

Ones	Tenths
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1

2 Solve the multiplication. Draw your answer.

12.2 × 3 = ☐

Tens	Ones	Tenths

3 Nijah uses long multiplication to solve 3.72 × 3

	3	7	2	
×			3	
	0	0	6	
	2	1	0	
	9	0	0	
1	1	1	6	

Use long multiplication to work out the calculations.

a)

	4	8	6	
×			4	

b)

	2	0	9	
×			6	

4 Work out the multiplications.

a) 5.2 × 4 = ☐

b) 14.3 × 3 = ☐

c) 6 × 9.1 = ☐

d) ☐ = 2.34 × 3

e) 11.505 × 4 = ☐

f) 9.602 × 6 = ☐

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5 0.25 kg of flour is needed to make one cake.

How much flour is needed to make four cakes?

6 Work out the multiplications.

a) 7.2 × 2 = ☐

7.2 × 4 = ☐

14.4 × 4 = ☐

7.2 × 8 = ☐

b) ☐ = 3.45 × 3

☐ = 34.5 × 3

☐ = 345 × 3

7 Amir is solving 3.4 × 4

To solve this, I did 34 × 4, which was 136
Then I multiplied my answer by 10 to get an answer of 1,360

Do you agree with Amir? _____

Explain why.

_____

_____

_____

8 Use the digits 1, 2, 3 and 4 once each to create a calculation.

1	2	3	4

☐ . ☐ ☐ × ☐

a) How many different products can you make?

b) What is the greatest possible product?

☐

c) What is the smallest possible product?

☐

d) What is the product closest to 12?

☐

Compare answers with a partner.

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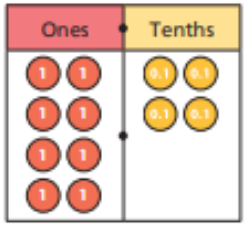
Day 3

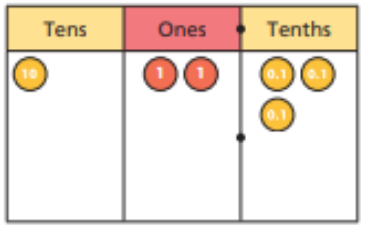
Divide decimals by integers

1 Use place value counters to work out the divisions.

a) 8.4 ÷ 4 = ☐



b) 12.3 ÷ 3 = ☐

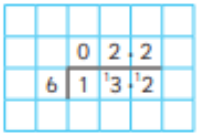


2 Work out the division. Draw your answer.

16.4 ÷ 4 = ☐

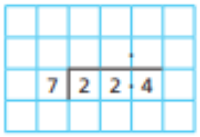
Tens	Ones	Tenths

3 Brett uses short division to work out 13.2 ÷ 6

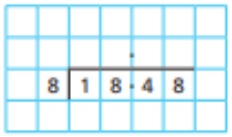


Use short division to work out the calculations.

a)



b)



4 Work out the divisions.

a) 25.6 ÷ 8 = ☐

b) 14.8 ÷ 4 = ☐

c) 18.48 ÷ 6 = ☐

d) ☐ = 19.45 ÷ 5

e) 202.35 ÷ 3 = ☐

f) 105.12 ÷ 9 = ☐

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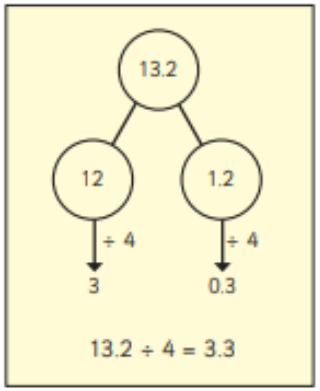
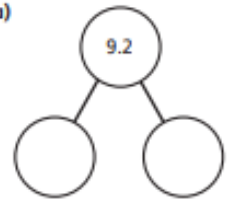
5 Esther solves 13.2 ÷ 4 by partitioning 13.2 into two numbers that are easier to divide.

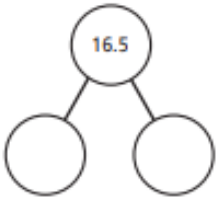


Use Esther's method to complete the part-whole model and calculation.

a)



b)



9.2 ÷ 4 = ☐

16.5 ÷ 3 = ☐

Compare answers with a partner. Did you partition your numbers in the same way?

6 Work out the divisions.

a) 9.64 ÷ 4 = ☐

96.4 ÷ 4 = ☐

0.964 ÷ 4 = ☐

9.64 ÷ 8 = ☐

b) 19.44 ÷ 9 = ☐

19.53 ÷ 9 = ☐

19.62 ÷ 9 = ☐

7 Fill in the missing numbers.

3.6 ÷ 4 = 36 ÷ ☐

3.6 ÷ 4 = ☐ ÷ 8

8 Complete the calculation.

8.4 ÷ ☐ = 4.2 ÷ ☐

How many different solutions can you find?

What patterns do you notice? Talk about it with a partner.

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Day 4

Decimals as fractions

1 Complete the sentences.

a)

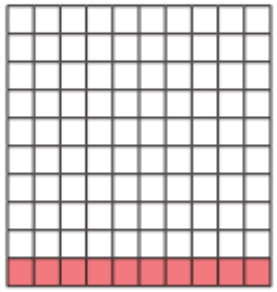
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

The whole has been divided into ☐ equal parts.

Each part is worth ☐

This is equivalent to ☐

b)



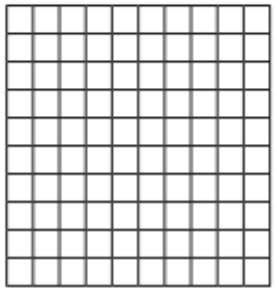
The whole has been divided into ☐ equal parts.

Each part is worth ☐

☐ parts out of ☐ are shaded.

This is equivalent to ☐

2 **a)** Shade 0.17 of the hundred square.



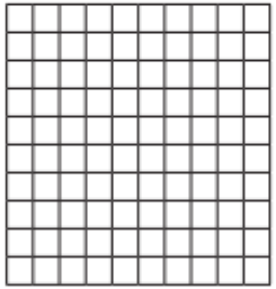
Complete the sentence.

☐ parts out of ☐ are shaded.

Write 0.17 as a fraction.

0.17 = ☐

b) Shade 0.2 of the hundred square.



Complete the sentence.

☐ parts out of ☐ are shaded.

Write 0.2 as a fraction in its simplest form.

0.2 = ☐

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3

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

0.2	0.2	0.2	0.2	0.2

Use the bar models to fill in the missing numbers.

$0.2 = \frac{\square}{10} = \frac{1}{\square}$

$0.4 = \frac{\square}{10} = \frac{2}{\square}$

$\square = \frac{\square}{10} = \frac{4}{5}$

4 Fill in the missing numbers.

a) $0.54 = \frac{\square}{100} = \frac{\square}{50}$

b) $0.6 = \frac{\square}{10} = \frac{\square}{5}$

c) $0.3 = \frac{\square}{10} = \frac{\square}{100}$

d) $\square = \frac{9}{100}$

e) $\square = \frac{9}{10}$

f) $\frac{21}{50} = \frac{\square}{100} = \square$

5 Use the bar models to fill in the missing numbers.

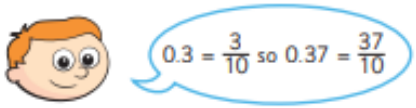
a)

$\frac{1}{2} = \frac{\square}{10} = \square$

b)

$\square = \frac{\square}{10} = \frac{\square}{20}$

6



Draw a diagram to show that Ron is wrong.

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Answers

1)

Multiply by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O •	Tth	Hth
			●●	●● ●	

a) 2.3 × 10 = 23

When the number is multiplied by 10 the counters move 1 place to the left.

b) 2.3 × 100 = 230

When the number is multiplied by 100 the counters move 2 places to the left.

c) 2.3 × 1,000 = 2,300

When the number is multiplied by 1,000 the counters move 3 places to the left.

2 Complete the diagram.

3.06 → × 10 → 30·6 → × 10 → 306

3 **a)** Draw counters on the place value charts to represent each calculation.

4.4 × 1

Th	H	T	O •	Tth	Hth
			○○ ○○	○○ ○○	

4.4 × 10

Th	H	T	O •	Tth	Hth
			○○ ○○	○○ ○○	

4.4 × 100

Th	H	T	O •	Tth	Hth
			○○ ○○	○○ ○○	

4.4 × 1,000

Th	H	T	O •	Tth	Hth
			○○ ○○	○○ ○○	

b) Complete the calculations.

4.4 × 1 = 4·4

4.4 × 10 = 44

4.4 × 100 = 440

4.4 × 1,000 = 4,400

What do you notice?

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4 Complete the calculations.

a) 13.44 × 10 = 134·4

b) 41.4 × 100 = 4,140

c) 0.415 × 1,000 = 415

d) 4.4 × 1,000 = 4,400

e) 103 = 1.03 × 100

f) 30.44 = 3·044 × 10

5 Complete the diagrams.

7.039 → (× 10) → 70·39 → (× 10) → 703·9 → (× 10) → 7,039

7.039 → (× 100) → 703·9 → (× 10) → 7,039

7.039 → (× 1,000) → 7,039

What do you notice? Why does this happen?

They all give the same final answer because 10 ×10 ×10 = 100 ×10 = 1,000

6 Write >, < or = to compare the number sentences.

1.4 × 10 × 10 × 10 = 1.4 × 1,000

1.4 × 10 × 100 = 1.4 × 1,000

1.4 × 10 × 10 < 1.4 × 1,000

1.4 × 10 × 2 < 1.4 × 100

7 Kim is calculating 14.3 × 200

She writes this as her answer.

14.3 × 200 = 28.600

Explain Kim's mistake.

She has multiplied by 2 and added two zeros. She hasn't considered the place value of each digit. 14·3×200 = 2860

8 Use the cards to complete the calculation.

You can use each card more than once.

× 1 | × 10 | × 100 | × 1,000

E.g. 0.002 × 10 × 100 × 1,000 = 2,000

How many ways is it possible to complete this calculation?

Talk about it with a partner.

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Divide by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
	●	● ● ● ●			

a) 140 ÷ 10 = 14

When the number is divided by 10 the counters move 1 place to the right.

b) 140 ÷ 100 = 1·4

When the number is divided by 100 the counters move 2 places to the right.

c) 140 ÷ 1,000 = 0·14

When the number is divided by 1,000 the counters move 3 places to the right.

2 Complete the diagram.

43 → ÷ 10 → 4·3 → ÷ 10 → 0·43

3 **a)** Draw counters to represent the calculations.

123 ÷ 1

H	T	O	Tth	Hth	Thth
O	O O	O O O			

123 ÷ 10

H	T	O	Tth	Hth	Thth
O	O O	O O O			

123 ÷ 100

H	T	O	Tth	Hth	Thth
O	O O	O O O			

123 ÷ 1,000

H	T	O	Tth	Hth	Thth
O	O O	O O O			

b) Complete the calculations.

123 ÷ 1 = 123

123 ÷ 10 = 12.3

123 ÷ 100 = 1.23

123 ÷ 1,000 = 0.123

What do you notice?

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4 Complete the calculations.

a) 16 ÷ 10 = 1·6

b) 43.4 ÷ 100 = 0·434

c) 614 ÷ 1,000 = 0·614

d) 332 ÷ 1,000 = 0.332

e) 2.4 ÷ 200 = 0.012

f) 5.09 = 101.8 ÷ 20

5 Complete the diagrams.

314 → ÷ 10 → 31·4 → ÷ 10 → 3·14 → ÷ 10 → 0·314

314 → ÷ 100 → 3·14 → ÷ 10 → 0·314

314 → ÷ 1,000 → 0·314

What do you notice? Why does this happen?

They all give the same final answer because 10 x 10 x 10 = 100 x 10 = 1,000

6 Write >, < or = to compare the number sentences.

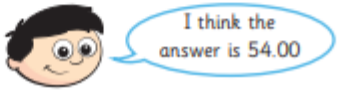
5,400 ÷ 10 ÷ 10 ÷ 10 = 5,400 ÷ 1,000

60 ÷ 100 ÷ 10 < 600 ÷ 100

5.7 ÷ 10 = 57 ÷ 100

5,601 ÷ 1,000 > 5.601 ÷ 10

7 Dexter is solving the calculation 5,400 ÷ 100

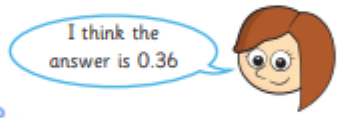


Is Dexter correct? Yes

Explain your reasoning.

54·00 is the same as 54

8 Rosie is solving the calculation 3,600 ÷ 200



Is Rosie correct? No

Explain your reasoning.

She has divide by 100 twice (10,000) she should have divided by 100 then 2 to give an answer of 18

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2)

Multiply decimals by integers

1 Use place value counters to solve the calculations.

a) 3.2 × 3 = 9·6

Ones	Tenths
1 1 1	0.1 0.1
1 1 1	0.1 0.1
1 1 1	0.1 0.1

b) 4.6 × 2 = 9·2

Ones	Tenths
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1

2 Solve the multiplication. Draw your answer.

12.2 × 3 = 36·6

Tens	Ones	Tenths
0 0 0	0 0 0 0 0 0	0 0 0 0 0 0

3 Nijah uses long multiplication to solve 3.72 × 3

		3	7	2	
	×			3	
		0	0	6	
		2	1	0	
		9	0	0	
	1	1	1	6	

Use long multiplication to work out the calculations.

a)

		4	8	6	
	×			4	
		0	2	4	
		3	2	0	
	1	6	0	0	
	1	9	4	4	

b)

		2	0	9	
	×			6	
		0	5	4	
		0	0	0	
	1	2	0	0	
	1	2	5	4	

4 Work out the multiplications.

a) 5.2 × 4 = 20·8

b) 14.3 × 3 = 42·9

c) 6 × 9.1 = 54·6

d) 7·02 = 2.34 × 3

e) 11.505 × 4 = 46·02

f) 9.602 × 6 = 57·612

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5 0.25 kg of flour is needed to make one cake.

How much flour is needed to make four cakes?

1 kg

6 Work out the multiplications.

a) 7.2 × 2 = 14·4

7.2 × 4 = 28·8

14.4 × 4 = 57·6

7.2 × 8 = 57·6

b) 10·35 = 3.45 × 3

103·5 = 34.5 × 3

1,035 = 345 × 3

7 Amir is solving 3.4 × 4

To solve this, I did 34 × 4, which was 136
Then I multiplied my answer by 10 to get an answer of 1,360

Do you agree with Amir? NO

Explain why.

34 is ten times bigger than 3·4 so he should have divided by 10 to get 13·6

8 Use the digits 1, 2, 3 and 4 once each to create a calculation..

1	2	3	4

☐ . ☐ ☐ × ☐

a) How many different products can you make?

Various answers

b) What is the greatest possible product?

12·84

c) What is the smallest possible product?

2·34

d) What is the product closest to 12?

12·36

Compare answers with a partner.

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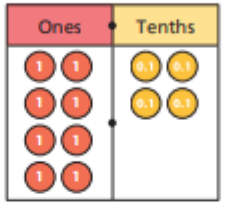
3)

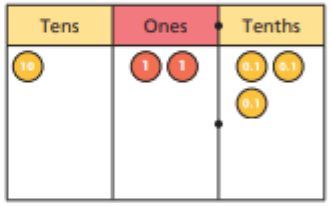
Divide decimals by integers

1 Use place value counters to work out the divisions.

a) 8.4 ÷ 4 = 2·1

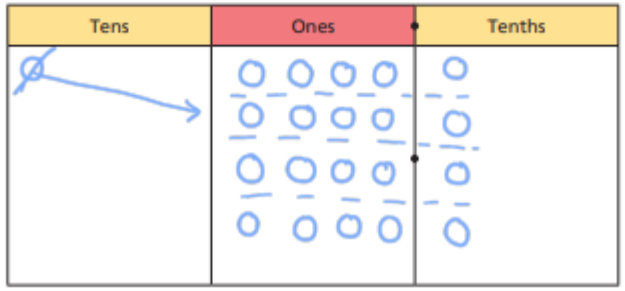


b) 12.3 ÷ 3 = 4·1

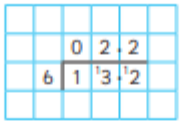


2 Work out the division. Draw your answer.

16.4 ÷ 4 = 4·1

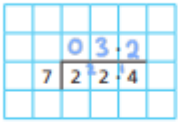


3 Brett uses short division to work out 13.2 ÷ 6

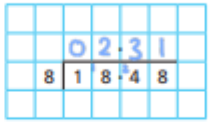


Use short division to work out the calculations.

a)



b)



4 Work out the divisions.

a) 25.6 ÷ 8 = 3·2

b) 14.8 ÷ 4 = 3·7

c) 18.48 ÷ 6 = 3·08

d) 3·89 = 19.45 ÷ 5

e) 202.35 ÷ 3 = 67·45

f) 105.12 ÷ 9 = 11·68

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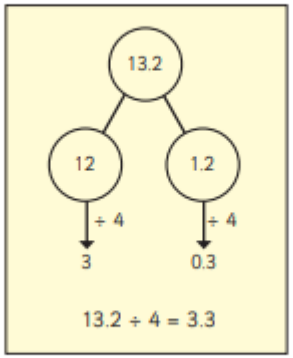
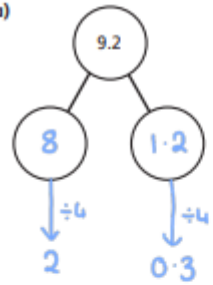
5 Esther solves 13.2 ÷ 4 by partitioning 13.2 into two numbers that are easier to divide.



13.2 ÷ 4 = 3.3

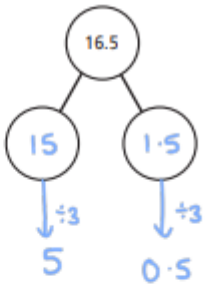
Use Esther's method to complete the part-whole model and calculation.

a)



9.2 ÷ 4 = 2·3

b)



16.5 ÷ 3 = 5·5

Compare answers with a partner. Did you partition your numbers in the same way?

6 Work out the divisions.

a) 9.64 ÷ 4 = 2·41

96.4 ÷ 4 = 24·1

0.964 ÷ 4 = 0·241

9.64 ÷ 8 = 1·205

b) 19.44 ÷ 9 = 2·16

19.53 ÷ 9 = 2·17

19.62 ÷ 9 = 2·18

7 Fill in the missing numbers.

3.6 ÷ 4 = 36 ÷ 40

3.6 ÷ 4 = 7·2 ÷ 8

8 Complete the calculation.

eg 8.4 ÷ 2 = 4.2 ÷ 1

How many different solutions can you find?

What patterns do you notice? Talk about it with a partner.

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4)

Decimals as fractions

1 Complete the sentences.

a)

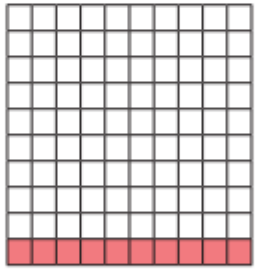
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

The whole has been divided into [10] equal parts.

Each part is worth [0·1]

This is equivalent to [$\frac{1}{10}$]

b)



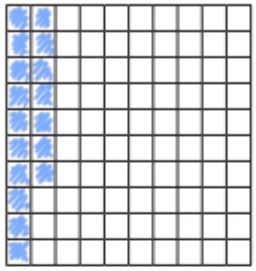
The whole has been divided into [100] equal parts.

Each part is worth [0·01]

[10] parts out of [100] are shaded.

This is equivalent to [$\frac{10}{100}$] or $\frac{1}{10}$

2 **a)** Shade 0.17 of the hundred square.



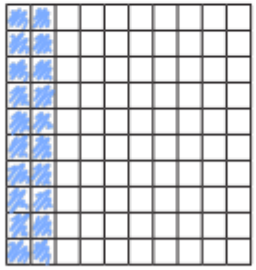
Complete the sentence.

[17] parts out of [100] are shaded.

Write 0.17 as a fraction.

0.17 = [$\frac{17}{100}$]

b) Shade 0.2 of the hundred square.



Complete the sentence.

[20] parts out of [100] are shaded.

Write 0.2 as a fraction in its simplest form.

0.2 = [$\frac{1}{5}$]

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3

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

0.2	0.2	0.2	0.2	0.2

Use the bar models to fill in the missing numbers.

$0.2 = \frac{2}{10} = \frac{1}{5}$

$0.4 = \frac{4}{10} = \frac{2}{5}$

$0.8 = \frac{8}{10} = \frac{4}{5}$

4 Fill in the missing numbers.

a) $0.54 = \frac{54}{100} = \frac{27}{50}$

b) $0.6 = \frac{6}{10} = \frac{3}{5}$

c) $0.3 = \frac{3}{10} = \frac{30}{100}$

d) $0.09 = \frac{9}{100}$

e) $0.9 = \frac{9}{10}$

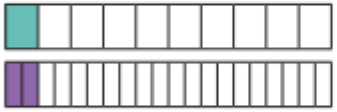
f) $\frac{21}{50} = \frac{42}{100} = 0.42$

5 Use the bar models to fill in the missing numbers.

a)

$\frac{1}{2} = \frac{5}{10} = 0.5$

b)

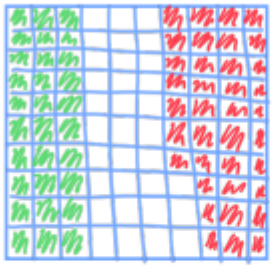


$0.1 = \frac{1}{10} = \frac{2}{20}$

6

$0.3 = \frac{3}{10}$ so $0.37 = \frac{37}{10}$

Draw a diagram to show that Ron is wrong.



$0.3 = \frac{3}{10}$

$0.37 = \frac{37}{100}$

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Two Famous Speeches

English Day 2

John F. Kennedy - *The Decision to go the Moon 1961*
(President of USA in 1960s)

We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organise and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too.

1. What is Kennedy explaining?
2. Why do you think he repeats the phrase "We choose to go to the moon"?

   ...not because they are easy, but because they are hard...
3. Does this reason surprise you?
   Why do you think he uses contrasts such as *easy* and *hard* in his speech?

Barack Obama - *Victory speech 2008*
(President of USA 2009-2017)

The road ahead will be long. Our climb will be steep. We may not get there in one year or even in one term, but America - I have never been more hopeful than I am tonight that we will get there. I promise you - we as a people will get there.

There will be setbacks and false starts. There are many who won't agree with every decision or policy I make as president, and we know that government can't solve every problem. But I will always be honest with you about the challenges we face. I will listen to you, especially when we disagree.

And above all, I will ask you to join in the work of remaking this nation the only way it's been done in America for 221 years - block by block, brick by brick, calloused hand by calloused hand.

4. Who is Obama talking to?

   The road ahead will be long. Our climb will be steep.
5. Is he really talking about an actual road? What is he describing with this image?

   ...block by block, brick by brick...
6. What affect does this alliteration (repeating the beginning sound) have and why does he use it?

Two More Famous Speeches

Elizabeth I - *Speech to the Troops* 1588
(Queen of England during Tudor times)

I am come amongst you, as you see, at this time, not for my **recreation and disport**, but being resolved, in the midst and heat of the battle, to live and die amongst you all; to lay down for my God, and for my kingdom, and my people, my honour and my blood, even in the dust. I know I have the body but of a weak and feeble woman; but I have the heart and stomach of a king, and of a king of England too. I myself will take up arms, I myself will be your general, judge, and rewarder of every one of your **virtues** in the field.

Recreation and disport - amusement, fun **Virtues** – good qualities

Winston Churchill - *We shall fight on the beaches* 1940
(Prime minster of Britain during WWII)

...we shall defend our Island, whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender, and even if, which I do not for a moment believe, this Island or a large part of it were **subjugated** and starving, then our Empire beyond the seas, armed and guarded by the British **Fleet**, would carry on the struggle, until, in God's good time, the New World, with all its power and might, steps forth to the rescue and the liberation of the old.

subjugated - taken control of, dominated **Fleet** - A number of warships

Two More Famous Speeches - Questions

Winston Churchill

1. What phrase is repeated most in this speech?
   Why does he use repetition?

   ...in God's good time...

2. Why do you think he uses this alliteration?

3. What difficulty does Churchill predict and how does he make it seem less of a problem?

Elizabeth I

4. What is happening at the time of this speech?

5. Find an example of Elizabeth using contrast in her speech.
   Why does she use it?

6. What words to do with the human body does she use and why?

7 Which speech do you think is the most persuasive?
Explain why, giving examples.

Guide to Comprehension Answers

Two Famous Speeches

1. What is Kennedy explaining? *The reasons for going to the moon*
2. Why do you think he repeats the phrase "We choose to go to the moon"? *This is the main point of his speech. Repeating the phrase helps to make it stand out/be memorable.*
3. Does this reason surprise you? *Yes/no* Why do you think he uses contrasts such as *easy* and *hard* in his speech? *The contrast makes it stand out. It is surprising. It seems like a bigger achievement.*
4. Who is Obama talking to? America, the American people
5. Is he really talking about an actual road? What is he describing with this image? *It is a metaphor. He is describing the next few years as a journey taken together with the American people.*
6. What affect does this alliteration (repeating the beginning sound) have and why does he use it?
The words block and brick stand out. He makes it sound like he is building something. (It sounds like a physical task which hard work but will achieve something solid).
7. **Both speakers** say things *will* happen rather than *might* or *may* happen. Why do they use this modal verb in their speech? *They are talking about the future so can't be sure but use* ***will*** *as it sounds more certain. They sound confident that they will achieve their goals. It is more persuasive.*
8. Which speech do you think is most persuasive? Explain why, giving examples.
Any reasonable answer justified with examples from the text.

Two More Famous Speeches

1. What phrase is repeated most in this speech? Why does he use repetition? *'we shall fight' – it makes it stand out/be memorable. It is the main point of the speech. To build up momentum – like a chant. To inspire those who will be fighting/will deal with hardship as a result of the fighting.*
2. Why do you think he uses this alliteration? *To make the words stand out. To make the link between God and his actions. To give his actions legitimacy.*
3. What difficulty does Churchill predict and how does he make it seem less of a problem? *Britain might be taken over by a foreign power and the people starve. He does not believe it will happen even 'for a moment'. The country would be rescued by the Empire/New World and British fleet.*
4. What is happening at the time of this speech? *Troops of soldiers are preparing to go into battle.*
5. Find an example of Elizabeth using contrast in her speech. *'to live and die', 'recreation and disport' 'midst and heat of the battle' 'a weak and feeble woman' 'heart and stomach of a king'* Why does she use it? *To make the words stand out. To challenge those who accuse her of playing or being weak. To emphasise her strength and resolve.*
6. What words to do with the human body does she use and why? *'blood', 'heart' 'stomach' The soldiers are about to risk their lives in battle – these are apt terms which everyone can relate to. The heart, blood and stomach are associated with courage and strength. Elizabeth wants to seem like a strong, brave leader. (Some children may identify 'arms'. Make links to the term 'armed' as in holding a weapon.)*

English Day 4

Malala Yousafzai – Five Important Facts

Read the webpage and make notes.

https://www.bbc.co.uk/newsround/46865195

Malala Yousafzai's – *Speech to the United Nations* 2013

Extracts of Malala Yousafzai's speech that gave to the United Nations in 2013, the date of her 16th birthday and "Malala Day" at the UN.

Dear brothers and sisters, do remember one thing: Malala Day is not my day. Today is the day of every woman, every boy and every girl who have raised their voice for their rights. There are hundreds of human rights activists and social workers who are not only speaking for their rights, but who are struggling to achieve their goal of peace, education and equality. I am just one of them. So here I stand, one girl, among many. I speak not for myself, but so those without a voice can be heard. Those who have fought for their rights. Their right to live in peace. Their right to be treated with dignity. Their right to equality of opportunity. Their right to be educated.

Dear friends, on 9 October 2012, the Taliban shot me on the left side of my forehead. They shot my friends, too. They thought that the bullets would silence us, but they failed. And out of that silence came thousands of voices. The terrorists thought they would change my aims and stop my ambitions. But nothing changed in my life except this: weakness, fear and hopelessness died. Strength, power and courage were born.

I am the same Malala. My ambitions are the same. My hopes are the same. And my dreams are the same. Dear sisters and brothers, we realize the importance of light when we see darkness. We realize the importance of our voice when we are silenced. In the same way, when we were in Swat, the north of Pakistan, we realised the importance of pens and books when we saw the guns. The wise saying, "The pen is mightier than the sword," is true. The extremists are afraid of books and pens. The power of education frightens them.

Peace is a necessity for education. In many parts of the world, terrorism, war and conflicts stop children from going to schools. We are really tired of these wars. Dear brothers and sisters, we want schools and education for every child's bright future. We will continue our journey to our destination of peace and education. No one can stop us. We will speak up for our rights and we will bring change to our voice. We believe in the power and the strength of our words. Our words can change the whole world because we are all together, united for the cause of education. And if we want to achieve our goal, then let us empower ourselves with the weapon of knowledge and let us shield ourselves with unity and togetherness.

So let us wage a global struggle against illiteracy, poverty and terrorism and let us pick up our books and our pens. They are our most powerful weapons. One child, one teacher, one book and one pen can change the world. Education is the only solution. Education first.

Reflection Prompts

Who is the **audience**?

What is the **purpose** or main point of the speech?

How **persuasive** do you find the speech? *Explain why.*

What **persuasive features** can you spot? *Give examples.*

What impact do they have?

Which persuasive techniques are **not used**?

Can you think of a reason why Malala did not use them?

Persuasive Features

Can you find any of these in Malala's speech?

Persuasive Language Features

- Present tense
- Conjunctions for cause, contrast, condition
- Adverbs for lists, cause, contrast, attitude
- Emotive language
- Strong images/word play*
- Deliberate ambiguity
- Rhetorical questions
- Daring reader to disagree
- Opinion as fact

Word Play/Imagery*

- Alliteration
- Repetition
- Onomatopoeia
- Simile
- Metaphor
- Exaggeration
- Contrasting pairs
- Lists (esp. of 3)

Delhi
India

April 2013

Dear Greta

My name is Garvita, the founder of 'Why Waste?' an orgnisation which aims to educate people to educate people across the globe and encourage them to take action on reducing water waste in our every day lives. Some people call me the Greta of India!

I am so proud of everything you are doing. I am so sorry that you had to hear an applause at the UN during you captivating speech when you were weeping. Instead of sympathisiing and acting, the adult leaders around you were hooting and clapping. To the world leadder: Thak you for praisng us for making a difference at such a young age, but we need you to act now!

And Greta, here's how we can show them the difference. In a recent video of yours, I watched, on how to solve the climate crisis, you said, that stopping the buring of fossil fuels and planting more trees is the key. You were able to mobilise 7.8 million people accross the globe to come out to the streets and protest. What if these people (and maybe more) came out and planted just one tree each? I can't even begin to imagine the impact.

With hope we are able to change the world someday., I thank you for all that you do!

Your admirer and Changemaker

Garvita Gulhati

Geography

Use this table to compare the locations and their biomes.

Location	Biome	Climate Zone	Maximum Temperature	Minimum Temperature	Maximum Rainfall	What types of trees / plants are found?	What types of animals are found?
UK							
Manaus, Brazil							
Gobi, China / Mongolia							
Nunavut in Canada;							
Livingstone in Zambia							

Resources

Science:














Art - Jasper Johns Printing

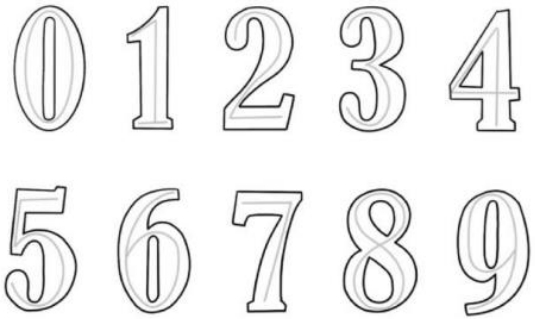
Jasper Johns – Crosshatch

Jasper Johns – Map

Jasper Johns – Alphabet

Use found objects to print with – this might be a fork, a cotton reel, the edge of a ruler, a paperclip, a lego brick – anything that creates a pattern. If using ready mixed paint, dip your item into the paint. If using watercolour paint, paint the raised edge of your item. If you don't have paint, you can use felt tips and again colour the edge of your item.

Using the same colour pick two objects and use each one to cover the surface of a piece of paper so that you have two printed papers. When they are dry, on one of the pieces of paper, draw a number – make it big and bold! Look at the template ideas here to help you.



second price of paper. Draw around it crayon or chalk ,colour in the image of just drawn on the second piece of pap around the edge.

When you have finished, glue the cut o the second piece of paper over the im coloured. You should be able to see th

Cut it out and lay it on your second price of paper. Draw around it then lift it off the page. Using crayon or chalk ,colour in the image of your number that you have just drawn on the second piece of paper, smudging the image around the edge.

When you have finished, glue the cut out number back down onto the second piece of paper over the image that you drew and coloured. You should be able to see the smudged edges.

Mrs T's Maths Groups – Years 6

Week beginning: 18th May 2020

Task 1.) ***LO: The Phi Moment – The Golden Ratio (Revisited)***

Click on the following link to learn more about the amazing Golden Ratio.

https://everwideningcircles.com/2019/05/10/golden-ratio-music-phi-moment/

Task: Try out The Phi Experiment, referred to in the body of the article. They say a piece of classical music is best, so you can try the following music:

https://youtu.be/npUWSwZGRu8

Or, try some of your own music, as well.

Method: Convert the length of your song into seconds, by multiplying by 60. Your answer should be multiplied by 0.618. Then, convert your answer into minutes and fractions thereof, by dividing by 60. Finally, jump to that point in the song and see if you hear anything different, more musically beautiful, around that moment.

Task 2.) ***LO: Circles - Pi***

Click on the following link – Listen to the song explain how to find the area & circumference of a circle.

https://www.youtube.com/watch?v=icrjzF3zl5A&list=PL57pneHQXdPY-2c9OnFHEHS4Nqtn2oAe9

Task: Listen to the song a few times and see if you can figure out the formula for finding the area and circumference of a circle.

Task 3.) ***LO: Circles - Pi***

Click on the following link and learn more about Pi:

https://www.youtube.com/watch?v=O-cawByg2aA

Task: Optional - Complete the Worksheet https://www.mathworksheets4kids.com/circles/area-circumference/customary/area-diameter-large.png

https://www.mathworksheets4kids.com/circles/area-circumference/customary/circumference-diameter-large.png