Year 3 Maths - 18.05.20

LO: Multiply and divide by 4 and 8

Today, you are to choose to complete either the **4x tables questions OR the 8x tables questions**. Pick the times-table you need to practise more.

You can watch the Tutorial White Rose video (available on the link below). If you choose to, you will need to watch the lesson from **last Monday – week4 lesson1**. There are follow up tasks on the Bitesize website too if you want.

https://whiterosemaths.com/homelearning/year-3/

We are working 1 week behind so please select **w/c 11/05** – Monday

Please complete the worksheet in your book.

Day 1 Starter:

1) Compare using $<$, $>$ or $=$

3×8 ◯ 3×4

2) What is $88 \div 8$?

3) Divide 28 by 4

4) What is 10 more than 475?

Day 1 Starter Answers:

1) Compare using $<$, $>$ or $=$

$3 \times 8 \; > \; 3 \times 4$

2) What is $88 \div 8$? 11

3) Divide 28 by 4 7

4) What is 10 more than 475? 485

The 4 times-table

1 Complete the multiplication.

a)

□ × □ = □

b)

□ × □ = □

Think about how many lots of 4 there are...

2 Complete the number sentences.

a) 6 × 4 = □

b) 4 × 3 = □

c) □ = 7 × 4

d) 4 × □ = 48

e) 0 × 4 = □

f) 4 × 9 = □

g) 24 ÷ 4 = □

h) 8 ÷ 4 = □

i) 0 ÷ 4 = □

j) □ ÷ 11 = 4

k) □ ÷ 4 = 5

l) 1 × 4 = □

3 What multiplication and division statements does the array represent?

Complete the statements.

□ × □ = □

□ × □ = □

□ ÷ □ = □

□ ÷ □ = □

4 Complete the number sentences.

a) 2 × 4 = □

4 × 4 = □

8 × 4 = □

b) 8 = 4 × □

16 = 4 × □

32 = 4 × □

c) 3 × 4 = □

3 × 8 = □

3 × 12 = □

What patterns do you notice?

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5 Write <, > or = to compare the statements.

a) 48 ÷ 12 ◯ 4

b) 36 ◯ 40 ÷ 4

c) 16 ÷ 4 ◯ 4 × 4

d) 4 ÷ 4 ◯ 4 × 4

e) 1 × 4 ◯ 4 × 1

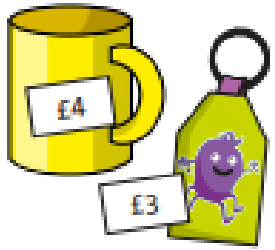
f) 4 × 2 ◯ 32 ÷ 4

6 A paper clip is 4 cm long.

How long are 6 of these paper clips?

7 Dexter buys 10 mugs and 4 key rings.

How much money does he spend in total?



8 The pictogram shows the animals a group of children have as pets.

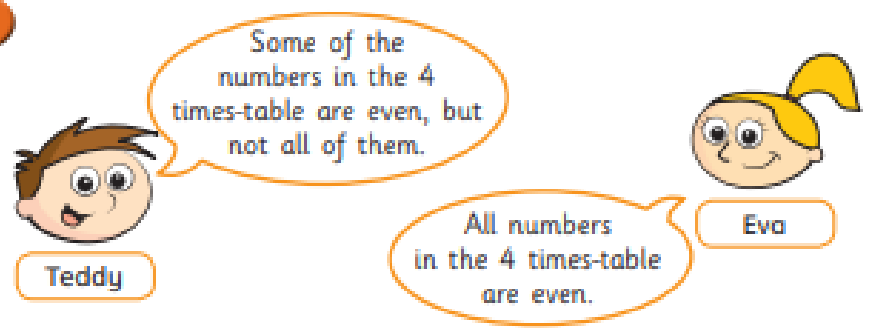
Complete the pictogram.

Animal	Pictogram	Number of animals
cat	●●●●	
dog		28
bird	●●●●●	
mouse	●	

● = 4 animals

Look carefully at how many animals each circle is worth

9



Who is correct? _____

How do you know? Talk about it with a partner.

The 8 times-table

1 How many are there in total?

Complete the multiplications.

a) 

□ × □ = □

b) 

□ × □ = □

Look carefully at whether the numbers are getting bigger or smaller

2 Complete the number tracks.

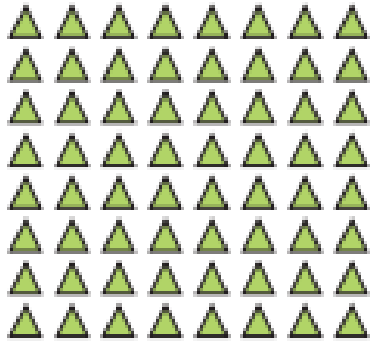
a)

0	8	16	24				

b)

96	88	80					

3 Here is an array made up of triangles.



Remember, what times-table are you looking at today?

a) What multiplication sentence can you see?

□ × □ = □

b) What division sentence can you see?

□ ÷ □ = □

4 Complete the calculations.

Try to do the calculations in your head.

a) 6 × 8 = □

b) 8 × □ = 56

c) 10 × 8 = □

d) □ = 8 × 4

e) 72 ÷ 8 = □

f) □ ÷ 11 = 8

g) □ ÷ 8 = 5

h) 8 × 1 = □

5 What multiplication can you see?

6 Complete the multiplications.

a) $2 \times 8 = \square$

$4 \times 8 = \square$

$8 \times 8 = \square$

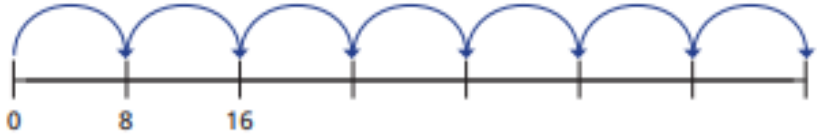
b) $8 = 8 \times \square$

$16 = 8 \times \square$

$32 = 8 \times \square$

What patterns do you notice?

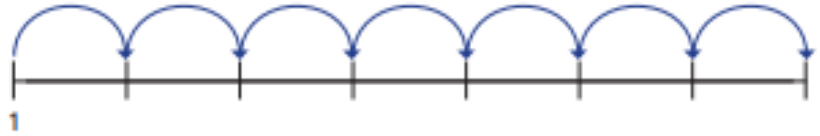
7 a) Amir draws 7 jumps of 8 on a number line.



What number does Amir end on? $\square$

Explain how you worked it out.

b) This time, Amir makes 7 jumps of 8, but starts from 1



What number does Amir end on this time? $\square$

Explain how you know.

8 Boats can be hired on a lake.

There are 5 large boats and 8 small boats on the lake.

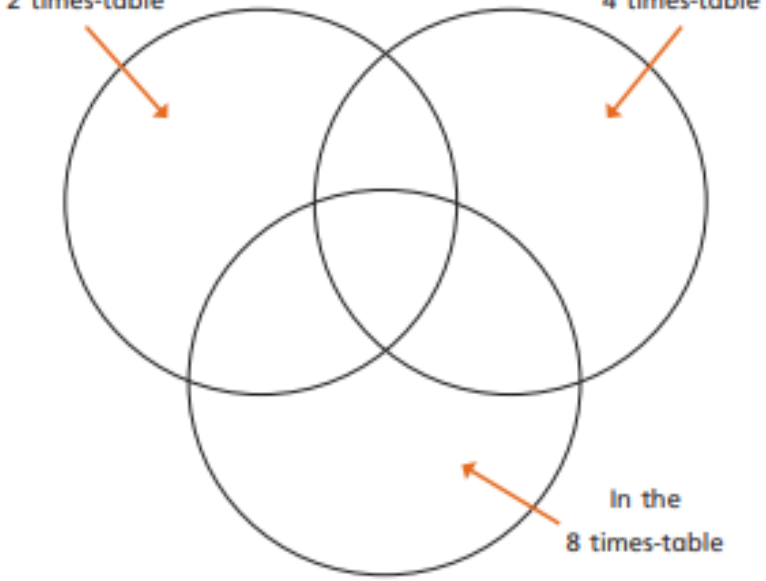
Each boat is full.

How many people are on the lake?

$\square$

9 Put the numbers into the sorting diagram.

2 4 16 32 48 36 12 6



Are any of the parts empty? Why?

Talk about it with a partner.

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It might be helpful to write your 2x, 4x and 8x up until you get to 48.

Numbers that belong in 2 or more circles need to go in the overlapping sections

Answers: 4x Questions

The 4 times-table

1 Complete the multiplication.

a)

8 × 4 = 32

b)

4 × 3 = 12

2 Complete the number sentences.

a) 6 × 4 = 24
b) 4 × 3 = 12
c) 28 = 7 × 4
d) 4 × 12 = 48
e) 0 × 4 = 0
f) 4 × 9 = 36
g) 24 ÷ 4 = 6
h) 8 ÷ 4 = 2
i) 0 ÷ 4 = 0
j) 44 ÷ 11 = 4
k) 20 ÷ 4 = 5
l) 1 × 4 = 4

3 What multiplication and division statements does the array represent?

Complete the statements.

4 × 7 = 28
7 × 4 = 28
28 ÷ 7 = 4
28 ÷ 4 = 7

4 Complete the number sentences.

a) 2 × 4 = 8
4 × 4 = 16
8 × 4 = 32
b) 8 = 4 × 2
16 = 4 × 4
32 = 4 × 8
c) 3 × 4 = 12
3 × 8 = 24
3 × 12 = 36

What patterns do you notice?

5 Write <, > or = to compare the statements.

a) 48 ÷ 12 = 4
b) 36 > 40 ÷ 4
c) 16 ÷ 4 < 4 × 4
d) 4 ÷ 4 < 4 × 4
e) 1 × 4 = 4 × 1
f) 4 × 2 = 32 ÷ 4

6 A paper clip is 4 cm long.

How long are 6 of these paper clips?

24cm

7 Dexter buys 10 mugs and 4 key rings.

How much money does he spend in total?

£52

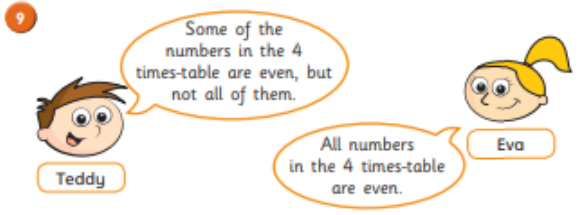
8 The pictogram shows the animals a group of children have as pets.

Complete the pictogram.

Animal	Pictogram	Number of animals
cat	●●●●	16
dog	○○○○○○○	28
bird	●●●●●	20
mouse	●	4

● = 4 animals

9



Who is correct? Eva

How do you know? Talk about it with a partner.

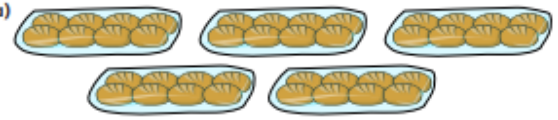
Answers: 8x Questions

The 8 times-table

1 How many are there in total?

Complete the multiplications.

a)



5 × 8 = 40

b)

4 × 8 = 32

2 Complete the number tracks.

a)

0	8	16	24	32	40	48	56

b)

96	88	80	72	64	56	48	40

3 Here is an array made up of triangles.

a) What multiplication sentence can you see?

8 × 8 = 64

b) What division sentence can you see?

64 ÷ 8 = 8

4 Complete the calculations.

Try to do the calculations in your head.

a) 6 × 8 = 48

b) 8 × 7 = 56

c) 10 × 8 = 80

d) 32 = 8 × 4

e) 72 ÷ 8 = 9

f) 88 ÷ 11 = 8

g) 40 ÷ 8 = 5

h) 8 × 1 = 8

5 What multiplication can you see?

6 Complete the multiplications.

a) 2 × 8 = 16

4 × 8 = 32

8 × 8 = 64

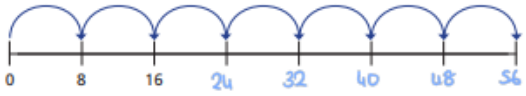
b) 8 = 8 × 1

16 = 8 × 2

32 = 8 × 4

What patterns do you notice?

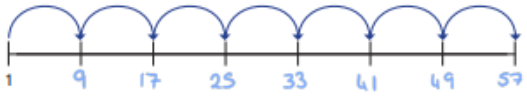
7 a) Amir draws 7 jumps of 8 on a number line.



What number does Amir end on? 56

Explain how you worked it out.

b) This time, Amir makes 7 jumps of 8, but starts from 1



What number does Amir end on this time? 57

Explain how you know.

8 Boats can be hired on a lake.

There are 5 large boats and 8 small boats on the lake.

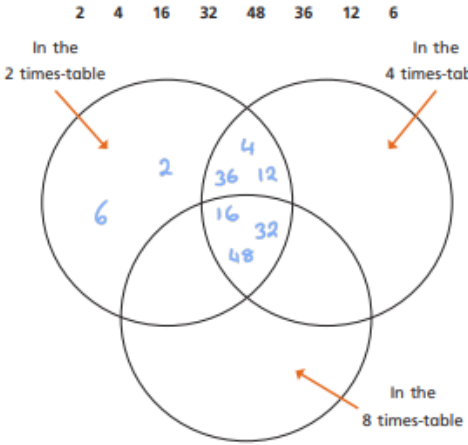
Each boat is full.

How many people are on the lake?

72

8 Put the numbers into the sorting diagram.

2 4 16 32 48 36 12 6



Are any of the parts empty? Why?

Talk about it with a partner.

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Year 3 Maths - 19.05.20

LO: Multiply 2 digit by 1 digit number

You can watch the Tutorial White Rose video (available on the link below). If you choose to, you will need to watch the lesson from **last Tuesday – week4 lesson2**. There are follow up tasks on the Bitesize website too if you want.

https://whiterosemaths.com/homelearning/year-3/

We are working 1 week behind so please select **w/c 11/05** – Tuesday

Please complete the worksheet in your book.

Day 2 Starter:

1) If $2 \times 8 = 16$, what is 2×80?

2) Calculate 8×4

3) If one car has 4 wheels, how many wheels do nine cars have?

4) Work out $135 + 142$

Day 2 Starter Answers:

1) If $2 \times 8 = 16$, what is 2×80? 160

2) Calculate 8×4 32

3) If one car has 4 wheels, how many wheels do nine cars have? 36 wheels

4) Work out $135 + 142$ 277

Multiply 2-digits by 1-digit (2)

1 There are 23 marbles in a jar.

There are 5 jars.

Tens	Ones

How many marbles are there in total?

5 × 3 ones = ☐

5 × 2 tens = ☐

☐ + ☐ = ☐

5 × 23 = ☐

There are ☐ marbles in total.

2 Work out 4 × 15

Tens	Ones
10	1 1 1 1 1
10	1 1 1 1 1
10	1 1 1 1 1
10	1 1 1 1 1

4 × 5 = ☐

4 × 10 = ☐

4 × 15 = ☐

Remember,
STEP 1: When multiplying a 2-digit number by a 1-digit number you should partition the 2-digit number into tens and ones.

3 Complete the multiplications.

a) 4 × 24 = ☐

b) 3 × 17 = ☐

c) 3 × 25 = ☐

d) 34 × 4 = ☐

Step 2: Multiply your 1-digit number by the ones and then the tens. Once you've worked these out, add them together to find the total.

4 Complete the column multiplications.

Tens	Ones
10 10	1 1 1 1
10 10	1 1 1 1
10 10	1 1 1 1

	T	O
	2	4
×		3

Tens	Ones
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1

			T	O
			3	5
	×			4

5 Work out the multiplications.

a) 25 × 5

			T	O
			2	5
	×			5

c) 5 × 26

b) 35 × 6

			T	O
			3	5
	×			6

d) 4 × 36

6 Tommy works out 37 × 2

			T	O
			3	7
	×			2
		6	1	4

What mistake has Tommy made? Work out the correct answer.

Follow the two steps, STEP 1: when multiplying a 2-digit number by a 1-digit number you should partition the 2-digit number into tens and ones.

7 Find the missing numbers.

			2	2
	×			
		8	8	

				1
	×			
		1	2	4

Step 2: Multiply your 1-digit number by the ones and then the tens. Once you've worked these out, add them together to find the total.

8 Here are some digit cards. 1 2 3 4 5 8

a) Use the digit cards to create a multiplication and work out the answer.

□□ × □ = □

b) Work with a partner to find calculations that have:

- an odd product
- an even product
- an exchange in the ones column
- an exchange in the ones and tens columns.

Answers

Multiply 2-digits by 1-digit (2)

1 There are 23 marbles in a jar.
There are 5 jars.

Tens	Ones
▬▬ ▬▬	● ● ●
▬▬ ▬▬	● ● ●
▬▬ ▬▬	● ● ●
▬▬ ▬▬	● ● ●
▬▬ ▬▬	● ● ●

How many marbles are there in total?

5 × 3 ones = 15

5 × 2 tens = 100

15 + 100 = 115

5 × 23 = 115

There are 115 marbles in total.

2 Work out 4 × 15

Tens	Ones
10	1 1 1 1 1
10	1 1 1 1 1
10	1 1 1 1 1
10	1 1 1 1 1

4 × 5 = 20

4 × 10 = 40

4 × 15 = 60

3 Complete the multiplications.

a) 4 × 24 = 96

b) 3 × 17 = 51

c) 3 × 25 = 75

d) 34 × 4 = 136

4 Complete the column multiplications.

Tens	Ones
10 10	1 1 1 1
10 10	1 1 1 1
10 10	1 1 1 1

	T	O
	2	4
×		3
	7	2
	1	

Tens	Ones
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1

	T	O
	3	5
×		4
1	4	0
	2	

5 Work out the multiplications.

a) 25 × 5

	T	O
	2	5
×		5
1	2	5
	2	

c) 5 × 26

	T	O
	2	6
×		5
1	3	0
	3	

b) 35 × 6

	T	O
	3	5
×		6
2	1	0
	3	

d) 4 × 36

	T	O
	3	6
×		4
1	4	4
	2	

6 Tommy works out 37 × 2

	T	O
	3	7
×		2
6	1	4

	T	O
	3	7
×		2
	7	4
	1	

What mistake has Tommy made? Work out the correct answer.

7 Find the missing numbers.

		2	2
×			4
	8	8	

		3	1
×			4
	1	2	4

8 Here are some digit cards. 1 2 3 4 5 8

a) Use the digit cards to create a multiplication and work out the answer.

Eg. 32 × 5 = 160

b) Work with a partner to find calculations that have:

- an odd product
- an even product
- an exchange in the ones column
- an exchange in the ones and tens columns.

Year 3 Maths - 20.05.20

LO: Divide a 2 digit number by a 1 digit number

You can watch the Tutorial White Rose video (available on the link below). If you choose to, you will need to watch the lesson from last **Wednesday – week4 lesson3**. There are follow up tasks on the Bitesize website too if you want.

https://whiterosemaths.com/homelearning/year-3/

We are working 1 week behind so please select **w/c 11/05** – Wednesday

Please complete the worksheet in your book.

Day 3 Starter:

1) What is 3×8?

2) Calculate 8×6

3) Multiply four by twelve

4) Write down a 3-digit number with 2 in the tens column.

Day 3 Starter Answers:

1) What is 3 × 8? 24

2) Calculate 8 × 6 48

3) Multiply four by twelve 48

4) Write down a 3-digit number with 2 in the tens column. e.g. 120, 325, 829

Divide 2-digits by 1-digit (2)

1 Rosie has 56 pencils.

a) Draw base 10 to represent the pencils.

Rosie shares the 56 pencils equally between 4 pots.

b) Draw base 10 on the place value grid to share the pencils.

Tens	Ones

c) How many pencils are in each pot? ☐

d) Did you have to make an exchange?

2 Eva has this money.

She wants to share the money equally between 3 people.

a) Use the place value chart to show how Eva can share the money.

Tens	Ones

b) How much money does each person get? ☐

Start by sharing the 10s out equally.

If you have 10s left, you can then exchange them for ones and continue to share them out.

3 Divide 72 by 3

Tens	Ones

Use the place value counters to help you.

72 ÷ 3 = ☐

4 Use base 10 or counters to work out the divisions.

a) 45 ÷ 3 = ☐

b) 57 ÷ 3 = ☐

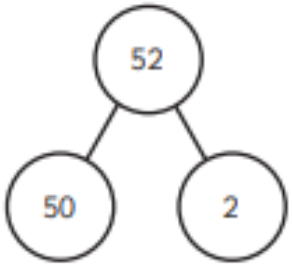
c) 92 ÷ 4 = ☐

5 Rosie and Tommy are working out 52 ÷ 4

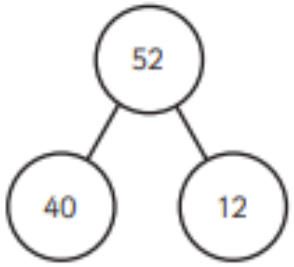
They both use a part-whole model.

Think about which model has been partitioned into multiples of 4...

Rosie



Tommy



a) Whose part-whole model will help them with the division?

_____

How do you know?

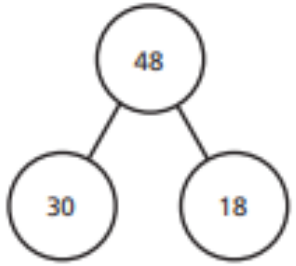
_____

_____

b) Use a part-whole model to work out 52 ÷ 4 ☐

6 Use the part-whole models to complete the divisions.

a) 48 ÷ 3 = ☐



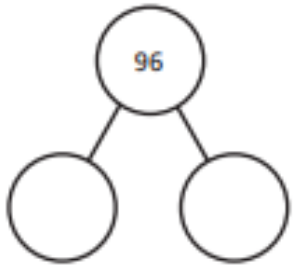
30 ÷ 3 = ☐

18 ÷ 3 = ☐

48 ÷ 3 = ☐

b) 96 ÷ 4 = ☐

c) 65 ÷ 5 = ☐



d) 75 ÷ 3 = ☐

Look at what you did on Q5 and 6a to help you. In the first part you have done __ x the multiple you're looking at each time.

7 Here are 3 divisions.

96 ÷ 8	96 ÷ 4	96 ÷ 2

a) What is the same about the questions? What is different?

b) Complete the divisions.

96 ÷ 8 = ☐ 96 ÷ 4 = ☐ 96 ÷ 2 = ☐

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

Answers

Divide 2-digits by 1-digit (2)

1 Rosie has 56 pencils.

a) Draw base 10 to represent the pencils.

Rosie shares the 56 pencils equally between 4 pots.

b) Draw base 10 on the place value grid to share the pencils.

Tens	Ones
1	6
1	4
1	3
1	3

c) How many pencils are in each pot? 14

d) Did you have to make an exchange?

2 Eva has this money.

She wants to share the money equally between 3 people.

a) Use the place value chart to show how Eva can share the money.

Tens	Ones
£10	£1 £1 £1 £1
£10	£1 £1 £1 £1
£10	£1 £1 £1 £1

b) How much money does each person get? £14

3 Divide 72 by 3

Tens	Ones
10 10	1 1 1 1
10 10	1 1 1 1
10 10	1 1 1 1

Use the place value counters to help you.

72 ÷ 3 = 24

4 Use base 10 or counters to work out the divisions.

a) 45 ÷ 3 = 15

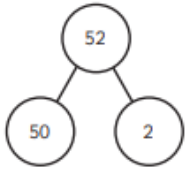
b) 57 ÷ 3 = 19

c) 92 ÷ 4 = 23

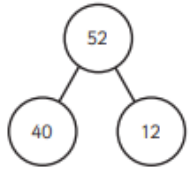
5 Rosie and Tommy are working out 52 ÷ 4

They both use a part-whole model.

Rosie



Tommy



a) Whose part-whole model will help them with the division?

Tommy

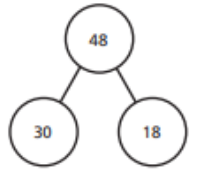
How do you know?

40 and 12 are both divisible by 4

b) Use a part-whole model to work out 52 ÷ 4 13

6 Use the part-whole models to complete the divisions.

a) 48 ÷ 3 = 16

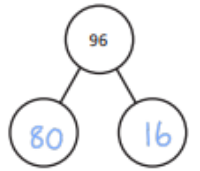


30 ÷ 3 = 10

18 ÷ 3 = 6

48 ÷ 3 = 16

b) 96 ÷ 4 = 24



c) 65 ÷ 5 = 13

d) 75 ÷ 3 = 25

7 Here are 3 divisions.

96 ÷ 8 | 96 ÷ 4 | 96 ÷ 2

a) What is the same about the questions? What is different?

b) Complete the divisions.

96 ÷ 8 = 12 | 96 ÷ 4 = 24 | 96 ÷ 2 = 48

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

Year 3 Maths - 21.05.20

LO: Multiplication and division problem solving

You can watch the Tutorial White Rose video (available on the link below). If you choose to, you will need to watch the lesson from last **Thursday – week4 lesson4**. There are follow up tasks on the Bitesize website too if you want.

https://whiterosemaths.com/homelearning/year-3/

We are working 1 week behind so please select **w/c 11/05** – Thursday

Please complete the worksheet in your book.

Day 4 Starter:

1) If $3 \times 4 = 12$, what is 30×4?

2) What is $48 \div 8$?

3) Multiply six by four

4) Find the sum of 179 and 241

Day 4 Starter Answers:

1) If $3 \times 4 = 12$, what is 30×4? 120

2) What is $48 \div 8$? 6

3) Multiply six by four 24

4) Find the sum of 179 and 241 420

1 Aisha has some fruit.

Complete the sentences to describe the fruit.

There are ☐ apples.

There are ☐ strawberries.

There are ☐ times as many strawberries as apples.

2 Huan is comparing 2 pieces of ribbon.

Complete the sentences to describe the ribbon.

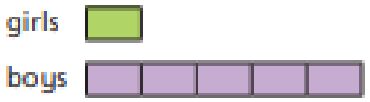
The spotty ribbon measures ☐

The plain ribbon measures ☐

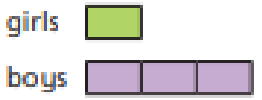
The plain ribbon is ☐ times as long as the spotty ribbon.

3 Match the bar models to the statements.

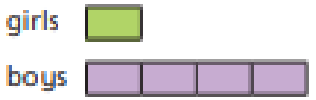
Write the missing statement.



There are 4 times as many boys as girls.



There are 3 times as many boys as girls.

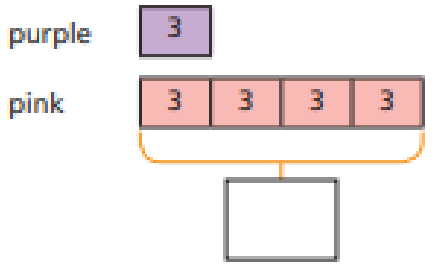


☐

4 There are 3 purple balloons.

There are 4 times as many pink balloons.

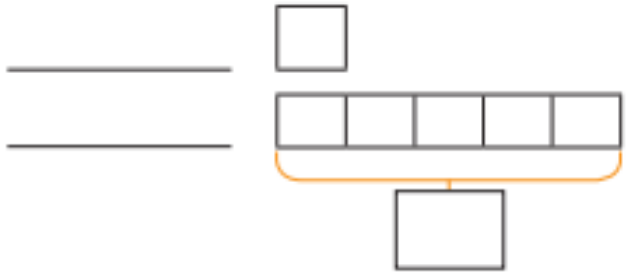
Complete the bar model to show how many pink balloons there are.



5 The red rope is 8 m long.

The blue rope is 5 times as long.

a) Label and complete the bar model.



b) How long is the blue rope?

The blue rope is ☐ m long.

6 Ron has 5 bananas.

Esther has 6 times as many bananas as Ron.

Draw a bar model to work out how many bananas Esther has got.

Esther has got ☐ bananas.

7 Complete the sentences.

45 is ☐ times greater than 5

☐ × 5 = 45

5 is ☐ times smaller than 45

45 ÷ 5 = ☐

8 The children are weighing out flour.

A B C D E

Use the clues to work out which child used which scales.

- Eva has twice as much as Alex.
- Dexter has 9 times as much as Alex.
- Annie has 3 times as much as Eva.
- Tommy has twice as much as Eva and 4 times as much as Alex.

	Alex	Eva	Dexter	Annie	Tommy
Scales					

Answers

Scaling

1 Aisha has some fruit.

Complete the sentences to describe the fruit.

There are [3] apples.

There are [9] strawberries.

There are [3] times as many strawberries as apples.

2 Huan is comparing 2 pieces of ribbon.

Complete the sentences to describe the ribbon.

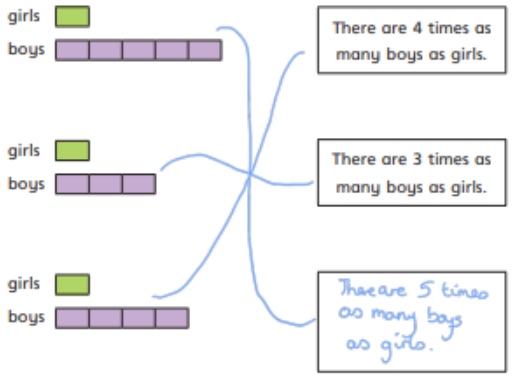
The spotty ribbon measures [4 cm]

The plain ribbon measures [16 cm]

The plain ribbon is [4] times as long as the spotty ribbon.

3 Match the bar models to the statements.

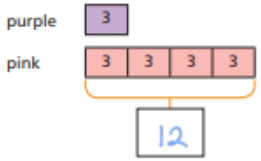
Write the missing statement.



4 There are 3 purple balloons.

There are 4 times as many pink balloons.

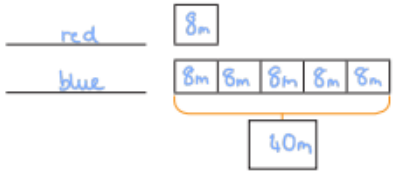
Complete the bar model to show how many pink balloons there are.



5 The red rope is 8 m long.

The blue rope is 5 times as long.

a) Label and complete the bar model.



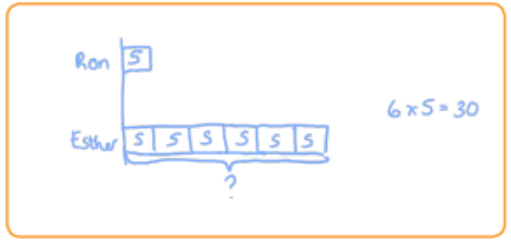
b) How long is the blue rope?

The blue rope is [40] m long.

6 Ron has 5 bananas.

Esther has 6 times as many bananas as Ron.

Draw a bar model to work out how many bananas Esther has got.



Esther has got [30] bananas.

7 Complete the sentences.

45 is [9] times greater than 5

[9] × 5 = 45

5 is [9] times smaller than 45

45 ÷ 5 = [9]

8 The children are weighing out flour.

Use the clues to work out which child used which scales.

- Eva has twice as much as Alex.
- Dexter has 9 times as much as Alex.
- Annie has 3 times as much as Eva.
- Tommy has twice as much as Eva and 4 times as much as Alex.

	Alex	Eva	Dexter	Annie	Tommy
Scales	D	E	B	A	C

Year 3 Maths - 22.05.20

LO: To use my maths skills to solve challenges.

Today there is no White Rose video, below is a link to the BBC. Challenges 1 and 2, are most suited to Year 3 but you are welcome to try Challenges 3 and 4.

Day 5 Starter:

1) Multiply 22 by 4

2) Work out 11 × 8

3) Divide thirty-two by four

4) Toby saves £120
He spends £47 on a game.
How much money does he have left?

Day 5 Starter
Answers:

1) Multiply 22 by 4 88

2) Work out 11 × 8 88

3) Divide thirty-two by four 8

4) Toby saves £120
He spends £47 on a game.
How much money does he have left? £73

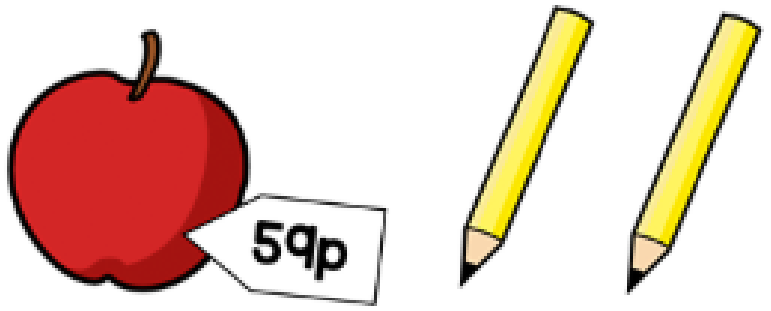
Challenge 1

Can you work out the values of each shape?

Challenge 2

Tom has six 10p coins and three 5p coins. He buys an apple for 59p and two pencils.

He has no money left. How much does a pencil cost?



These questions may have more than one step involved. Think carefully.

Challenge 3

Here are some digit cards.

Amir and Donna each make a three-digit number using all the cards.

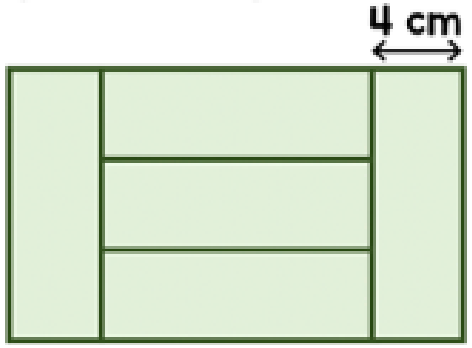
Amir notices that when he subtracts his number from Donna's number he gets an answer greater than 300 but less than 400.

What numbers did they make?

Challenge 4

Five identical rectangles are put together to make a large rectangle.

The width of one rectangle is 4cm. Work out the perimeter of the large rectangle.



Answers

Challenge 1 - star = 10, heart = 17, triangle = 0

Challenge 2 - A pencil costs 8p

Challenge 3 - Amir's number is 538, Donna's number is 853

Challenge 4 - Perimeter = 64 cm