Extra Challenge

I can decide which operation to use and explain why.

Complete these multi-step problems by selecting the correct operations to complete the calculations.

1) Six pencils cost £1.92. Three pencils and one rubber cost £1.21. What is the cost of one rubber?

_____

2) A stack of 40 identical toy boxes is 1000cm tall. Markus takes three boxes off the top of the pile. How tall is the stack now?

_____

3) Mrs Tunnicliffe is making jam to sell at the county fair. Blackberries cost £5.50 per kg. Sugar costs 65p per kg. 15 glass jars costs £5.85. She uses 16kg of blackberries and 10kg of sugar to make 15 jars of jam. Calculate the total cost to make 15 jars of jam.

_____

4) A school orders 12 boxes of dice. Each box contains six bags of dice. Each bag contains 35 dice. How many dice do the school order in total?

_____

5) Mikel thinks of a number. He multiplies the number by 100, divides it by eight then adds 6.50. The answer is 1206.5. What was his starting number?

_____

6) Eight small bricks have the same mass as three large bricks. The mass of one small brick is 1.5kg. What is the mass of one large brick?

_____

7) A bag of five bananas costs £1. A bag of four grapefruits costs £2.40. How much more does one grapefruit cost than one banana?

_____

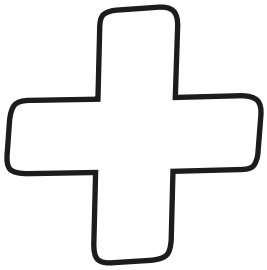
8) Erica chooses a number. She divides it by four then subtracts 11. She then divides this result by two. Her answer is 12.5. What was the number she started with?

_____

Extra Challenge **Answers**

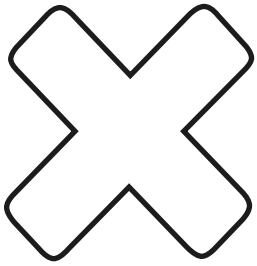
Question	Answer
1.	Six pencils cost £1.92. Three pencils and one rubber cost £1.21. What is the cost of one rubber?
	25p or £0.25
2.	A stack of 40 identical toy boxes is 1000cm tall. Markus takes three boxes off the top of the pile. How tall is the stack now?
	925cm tall (Each box is 25cm tall. 3 × 25cm = 75cm. 1000cm – 75cm = 925cm).
3.	Mrs Tunnicliffe is making jam to sell at the county fair. Blackberries cost £5.50 per kg. Sugar costs 65p per kg. 15 glass jars costs £5.85. She uses 16kg of blackberries and 10kg of sugar to make 15 jars of jam. Calculate the total cost to make 15 jars of jam.
	(16 × 5.50) + (0.65 × 10) + 5.85 = £100.35
4.	A school orders 12 boxes of dice. Each box contains six bags of dice. Each bag contains 35 dice. How many dice do the school order in total?
	2520 dice
5.	Mikel thinks of a number. He multiplies the number by 100, divides it by eight then adds 6.50. The answer is 1206.5. What was his starting number?
	96
6.	Eight small bricks have the same mass as three large bricks. The mass of one small brick is 1.5kg. What is the mass of one large brick?
	4kg
7.	A bag of five bananas costs £1. A bag of four grapefruits costs £2.40. How much more does one grapefruit cost than one banana?
	(1 ÷ 5 = 0.20, 2.40 ÷ 4 = 0.60, 0.60 – 0.20 =) 40p or £0.40
8.	Erica chooses a number. She divides it by four then subtracts 11. She then divides this result by two. Her answer is 12.5. What was the number she started with?
	144

Addition

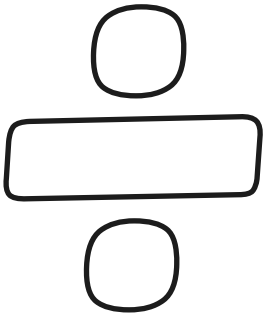


Subtraction

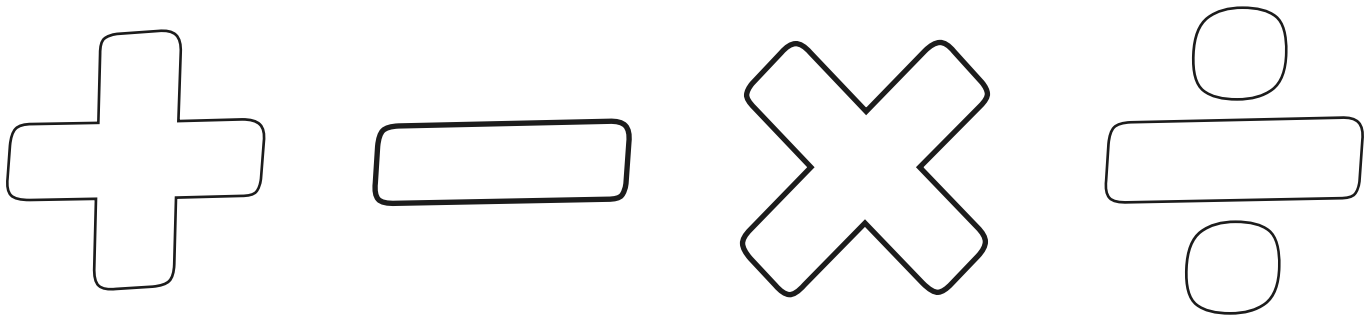
Multiplication



Division



More than one operation needed



Problem Sorter

I can decide which operation to use and explain why.

Answer the questions and circle which operations you used to complete the calculation.

1) On Sunday, I spend 439 minutes painting a portrait and 136 minutes painting a landscape. On Thursday evening, I spent a total of 523 minutes painting. What is the difference between the time I spend painting on Sunday and Thursday evening?

_____ + − × ÷

2) I got £293 for my birthday. I spent £54.38 on Saturday and £138.87 on Sunday. How much spending money have I got left?

_____ + − × ÷

3) Raj buys 25 cupcakes priced £3.69 each and a chocolate cake priced £8.70. How much did he spend altogether?

_____ + − × ÷

4) Sarah completed her marathon raising £551.20. She shares her raised money between her four chosen charities. Her mum insisted on giving £43 to each chosen charity as well. How much did each charity receive?

_____ + − × ÷

5) Lex has £95.27. He wants to buy eight DVDs priced £8.67 each. How much money will he have left?

_____ + − × ÷

6) I think of a number. I multiply the number by 100 then add 3.9. My answer is 7.85. What was my starting number?

_____ + − × ÷

7) Each table in a classroom is 100cm long and 50cm wide. There are 16 tables in a classroom. What is the total area of the tables in the classroom in square metres?

_____ + − × ÷

8) Ruby has 1.096l of juice. He shares it equally between eight cups. His sister drinks two cups. How much juice does he have remaining?

_____ + − × ÷

Problem Sorter **Answers**

Question	Answer
1. On Sunday, I spend 439 minutes painting a portrait and 136 minutes painting a landscape. On Thursday evening, I spent a total of 523 minutes painting. What is the difference between the time I spend painting on Sunday and Thursday evening?	
	52 minutes (+)(−) × ÷
2. I got £293 for my birthday. I spent £54.38 on Saturday and £138.87 on Sunday. How much spending money have I got left?	
	£99.75 (+)(−) × ÷
3. Raj buys 25 cupcakes priced £3.69 each and a chocolate cake priced £8.70. How much did he spend altogether?	
	£100.95 (+) − (×) ÷
4. Sarah completed her marathon raising £551.20. She shares her raised money between her four chosen charities. Her mum insisted on giving £43 to each chosen charity as well. How much did each charity receive?	
	£180.80 (+) − × (÷)
5. Lex has £95.27. He wants to buy eight DVDs priced £8.67 each. How much money will he have left?	
	£25.91 + (−)(×) ÷
6. I think of a number. I multiply the number by 100 then add 3.9. My answer is 7.85. What was my starting number?	
	0.0395 + (−) × (÷)
7. Each table in a classroom is 100cm long and 50cm wide. There are 16 tables in a classroom. What is the total area of the tables in the classroom in square metres?	
	8 square metres + − (×) ÷
8. Ruby has 1.096l of juice. He shares it equally between eight cups. His sister drinks two cups. How much juice does he have remaining?	
	822 millilitres or 0.822l + − (×)(÷)

Problem Sorter

I can decide which operation to use and explain why.

Answer the questions and circle which operation you used to complete the calculation.

1) I want to drive to Europe's largest sweet store which is 1535 miles away. I drive 249 miles and stop at the services for a cup of coffee. How many more miles do I have to drive?

_____ + − × ÷

2) I travelled 2100 metres in 600 seconds. On average, how many metres did I travel per second?

_____ + − × ÷

3) I think of a number. If I divide it by eight, the answer is 448. What was my starting number?

_____ + − × ÷

4) Magritte travelled 1134km by bus, 6394km by train and 732km by foot. What is the total distance Magritte has travelled?

_____ + − × ÷

5) Kevin rides 0.3km to school each day. How many kilometres will Kevin cycle in 32 school days?

_____ + − × ÷

6) A 1kg bag of sweets costs £15.98 and a jar of sweets costs £4.59 less. How much does the jar of sweets cost?

_____ + − × ÷

7) Small Fish £2.58
Large Fish £3.05
Chips: £1.54
Carton of Peas: £0.54
How much would it cost for one small fish, one large fish, two portions of chips and a carton of peas?

_____ + − × ÷

8) A doughnut store uses 29.2 kilograms of sugar each hour. How many kilograms of sugar will the store use in four hours?

_____ + − × ÷

9) I paid £2 for a bag of sweets. There are 25 sweets in the bag. How much did one sweet cost?

_____ + − × ÷

10) Kayla buys a magazine priced £7.59, a chocolate bar priced £3.55 and a drink priced £1.67. How much do the items cost altogether?

_____ + − × ÷

11) Maddie had 435 grams of chocolate fudge. Tariq had 238 grams of mint fudge. How many more grams of fudge did Maddie have than Tariq?

_____ + − × ÷

12) A boat travelled at a constant speed for four hours, covering a distance of 3134km. How far did the boat travel in one hour?

_____ + − × ÷

Problem Sorter **Answers**

Question	Answer
1. I want to drive to Europe's largest sweet store which is 1535 miles away. I drive 249 miles and stop at the services for a cup of coffee. How many more miles do I have to drive?	
	1286 miles + (−) × ÷
2. I travelled 2100 metres in 600 seconds. On average, how many metres did I travel per second?	
	3.5m/s + − × (÷)
3. I think of a number. If I divide it by eight, the answer is 448. What was my starting number?	
	3584 + − (×) ÷
4. Magritte travelled 1134km by bus, 6394km by train and 732km by foot. What is the total distance Magritte has travelled?	
	8260km (+) − × ÷
5. Kevin rides 0.3km to school each day. How many kilometres will Kevin cycle in 32 school days?	
	9.6km + − (×) ÷
6. A 1kg bag of sweets costs £15.98 and a jar of sweets costs £4.59 less. How much does the jar of sweets cost?	
	£11.39 + (−) × ÷
7. Small Fish £2.58 Large Fish £3.05 Chips: £1.54 Carton of Peas: £0.54 How much would it cost for one small fish, one large fish, two portions of chips and a carton of peas?	
	£9.25 (+) − × ÷

8. A doughnut store uses 29.2 kilograms of sugar each hour. How many kilograms of sugar will the store use in four hours?	
	116.8kg + − (×) ÷
9. I paid £2 for a bag of sweets. There are 25 sweets in the bag. How much did one sweet cost?	
	8p + − × (÷)
10. Kayla buys a magazine priced £7.59, a chocolate bar priced £3.55 and a drink priced £1.67. How much do the items cost altogether?	
	£12.81 (+) − × ÷
11. Maddie had 435 grams of chocolate fudge. Tariq had 238 grams of mint fudge. How many more grams of fudge did Maddie have than Tariq?	
	197g + (−) × ÷
12. A boat travelled at a constant speed for four hours, covering a distance of 3134km. How far did the boat travel in one hour?	
	783.5km + − × (÷)

Problem Sorter

I can decide which operation to use and explain why.

Answer the questions and circle which operations you used to complete the calculation.

1) On Sunday, I spend 114 minutes on my art project, and 45 minutes on my numeracy homework. On Thursday evening, I spent a total of 111 minutes on my homework. What is the difference between the time I spend doing homework on Sunday and Thursday evening?

_____ + − × ÷

2) I got £48.50 for my birthday. I spent £8.67 on Saturday and £19.49 on Sunday. How much spending money have I got left?

_____ + − × ÷

3) Raj buys 25 cupcakes priced £2.40 each and a chocolate cake priced £5.50. How much did he spend altogether?

_____ + − × ÷

4) Kumar has 313 football stickers and 187 rugby stickers. He shares them equally amongst ten people. How many stickers did each person receive?

_____ + − × ÷

5) Helena has £50. She buys eight CDs priced £4.65 each. How much money will she have left?

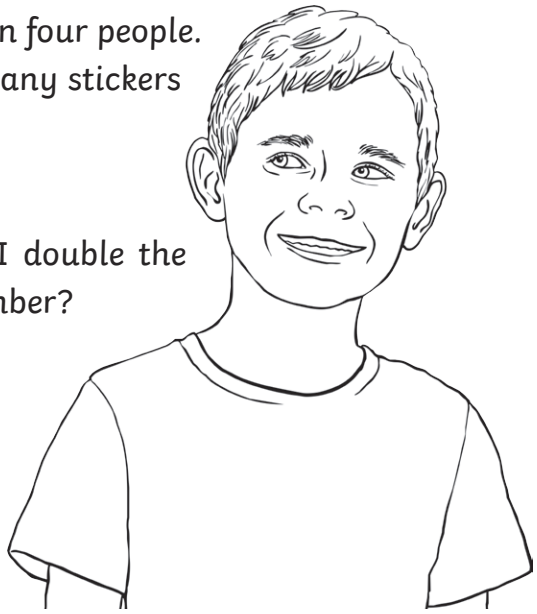
_____ + − × ÷

6) Mabel has 360 stickers. She shares them equally between four people. Out of her share, she gives her sister 54 stickers. How many stickers does she have remaining?

_____ + − × ÷

7) I think of a number. I multiply it by eight and then I double the answer. The answer is 200. What was my starting number?

_____ + − × ÷



Problem Sorter **Answers**

Question	Answer
1. On Sunday, I spend 114 minutes on my art project, and 45 minutes on my numeracy homework. On Thursday evening, I spent a total of 111 minutes on my homework. What is the difference between the time I spend doing homework on Sunday and Thursday evening?	
	48 minutes (+) (−) × ÷
2. I got £48.50 for my birthday. I spent £8.67 on Saturday and £19.49 on Sunday. How much spending money have I got left?	
	£20.34 (+) (−) × ÷
3. Raj buys 25 cupcakes priced £2.40 each and a chocolate cake priced £5.50. How much did he spend altogether?	
	£65.50 (+) − (×) ÷
4. Kumar has 313 football stickers and 187 rugby stickers. He shares them equally amongst ten people. How many stickers did each person receive?	
	50 stickers (+) − × (÷)
5. Helena has £50. She buys eight CDs priced £4.65 each. How much money will she have left?	
	£12.80 + (−) (×) ÷
6. Mabel has 360 stickers. She shares them equally between four people. Out of her share, she gives her sister 54 stickers. How many stickers does she have remaining?	
	36 stickers + (−) × (÷)
7. I think of a number. I multiply it by eight and then I double the answer. The answer is 200. What was my starting number?	
	12.5 + (−) (×) ÷

Read

Read the question.

What is the important information?

Understand

Understand the question.

What do you need to find out?

Choose

Choose the correct method of calculation and operation(s).

Solve

Solve the problem.

Make sure you follow the steps.

Answer

Answer the question.

What were you meant to find out?

Check

Check your answer.

Use the inverse to check your working out.