

All Kinds of Word Problems

The Four Operations
10 Questions, Answers and a
Challenge

Year 4



THIRD SPACE
LEARNING

Year 4 Problems on the Four Operations

Name.....

Date.....Class

School



Please write your answer on the answer line provided. You can use the space provided below the question for working out if you need it.

1

Can you write an addition, subtraction, multiplication and division calculation where 6921 is the answer?



Addition calculation

Multiplication calculation

Subtraction calculation

Division calculation

2 Tom, Sally and Paul go on a walk. They walk 5.5 km altogether.

Sally walks double the amount of Tom.

Paul walks $\frac{2}{3}$ less than Sally.

Tom walks 1.5 km.

How far did they each walk?



Answer Sally.....km Tom.....km Paulkm

3 Alice went shopping for some clothes. She bought some different items.

She brought a sunhat and an overshirt and paid £21 for both of them.

She brought three overshirts for £30 altogether.

She brought shorts and a sunhat for £19.

She brought a skirt and shorts for £20.

Each item cost a different amount. Can you work out what each item cost?



Answer Sunhat £..... Overshirt £..... Shorts £..... Skirt £.....

4 George went to the post office to post some parcels and letters.

He paid using a £2.00 coin.
He posted 2 parcels which cost him £1.28 altogether.

- a How much did each parcel cost to post? Hint: each parcel cost the same amount to post.
- b George received his change back and realised he had exactly enough to post his four letters.

How much did it cost to post each letter?
Hint: each letter cost the same amount to post.



Answer ap
Answer bp

5

Alan has followed a recipe to make some biscuits. The quantities of ingredients below allow him to make 8 biscuits:

100 g Flour

75 g Sugar

50 g Butter

2 Eggs

a Alan now needs to make 4 biscuits. Can you help him work out how much of each ingredients he will need?

b Next, Alan needs to make 32 biscuits. Can you help him work out how much of each ingredients he will need?



Answer a Flour.....g Sugarg Butterg Eggs

Answer b Flour.....g Sugarg Butterg Eggs

6

Jodie is making bracelets for four of her friends. She has 87 beads and makes the bracelets using an equal number of beads for each one.

a How many beads has each bracelet got?

b How many beads are left over?

Three more of her friends arrive.

Jodie wants to make them bracelets too but she has no more extra beads so she undoes all the bracelets she made to make new ones.

c How many beads would each bracelet have now?

d How many beads would be left over?



Answer a

Answer b

Answer c

Answer d

7

Polly buys some birthday presents from a shop.

She spends £19.24 altogether.

She buys three identical bookmarks which cost £3.69 in total.

a How much does each bookmark cost?

b From the money left over she buys two books. Each book has a different price. What could the two books cost?



Answer a £.....

Answer b £..... and £.....

8

Mrs Daniels the shopkeeper has some special offers.
Amy has noticed that they may not be correct.

Can you explain why?

Cola 36p per can
Or buy 6 cans for £2.20.

Beans 45p per tin
Or buy 12 tins for £5.50.

Biscuits 56p per pack
Or 4 packs for £2.35.



Answer

9 Meg has two dogs. She gives them 4 treats every day between them.

- a How many treats would the dogs have in a week?
- b How many treats would they have in a month (4 weeks)?
- c How many treats would they have in a year (52 weeks)?

Answer a

Answer b

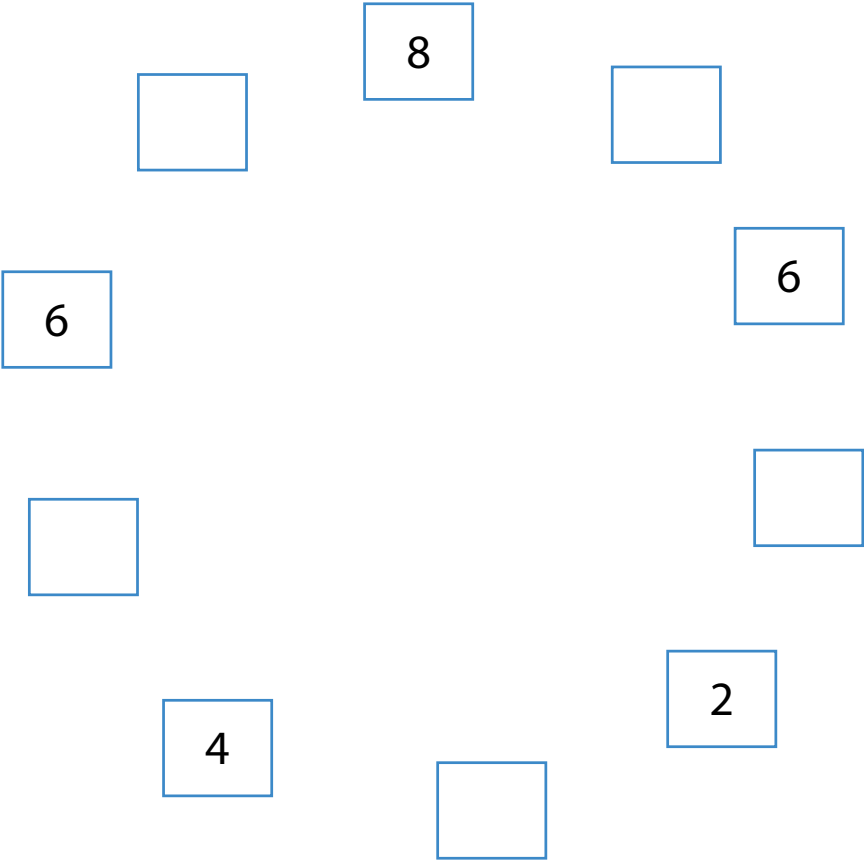
Answer c

10

Can you add in the mathematical symbols (+, −, ×, ÷, =) to make the circular calculation correct?

Your answer to the calculation will be the same number you started with in the circle.

For example if you start at 6 then your answer will be 6 once you have gone around the circle, performing each calculation.



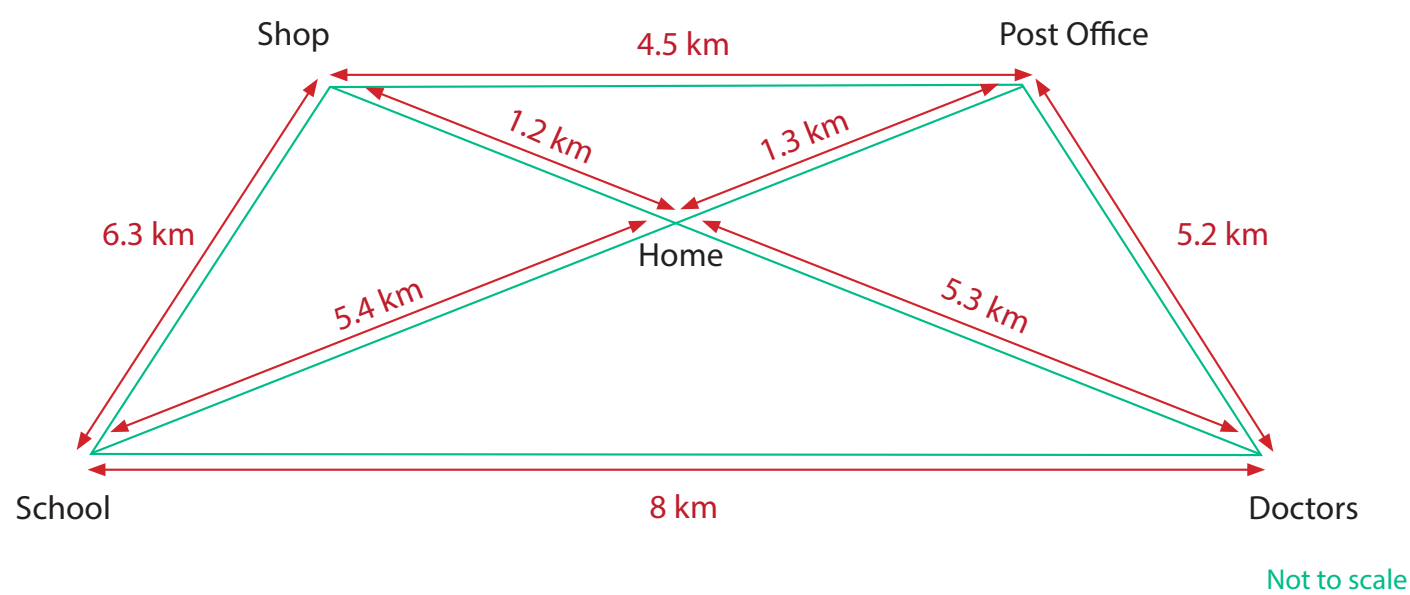
Challenge Question!



Mr Smith needs to pick his daughter, Amy, up from school.

Before he can pick her up he needs to go to the doctors to pick up a prescription, the post office to post a parcel and the shop to buy some groceries.

What is the shortest distance he can travel if he sets off from home?



Answerkm

Answer Sheet

- 1 Any calculation that gives the answer of 6921 is correct. Examples are:
- 3460.5×2
 - 2307×3
 - $6597 + 324$
 - $3900 + 3021$
 - $20\,763 \div 3$
 - $13\,842 \div 2$
 - $7022 - 101$

Content Domains: Fluency using all four operations (4C3, 4C6b, 4C6c, 4C8)

- 2 Sally walks 3.0 km.
Tom walks 1.5 km.
Paul walks 1 km.

Content Domains: Solving problems with all four operations using decimals and measure (4C4, 4C6c, 4C8)

- 3 Sunhat = £11
Overshirt = £10
Shorts = £8
Skirt = £12

Content Domains: Calculations using money (4C3, 4C4, 4C6c)

- 4 a. The parcels cost 64 p each.
b. George received 72 p in change so each letter cost 18 p to post.

Content Domains: Calculations using money (4C3, 4C4, 4C6b, 4C6c)

- 5 a. 4 people = 50 g flour, 37.5 g sugar, 25 g butter, 1 egg.
b. 32 people = 400 g flour, 300 g sugar, 200 g butter, 8 eggs.

Content Domains: Multiplication and division facts (4C3, 4C6a, 4C6b, 4C6c)

- 6 a. Each bracelet has 21 beads.
b. There will be 3 beads left over.
c. Each bracelet would have 12 beads.
d. There would be 3 left over.

Content Domains: Division calculations with remainders (4C3, 4C6a, 4C6b, 4C8)

- 7 a. Each bookmark cost £1.23.
b. Accept any answer where the price of the two books totals £15.55.
For example, £8.00 and £7.55.

Content Domains: Using all four operations with money and commutativity (4C3, 4C6c)

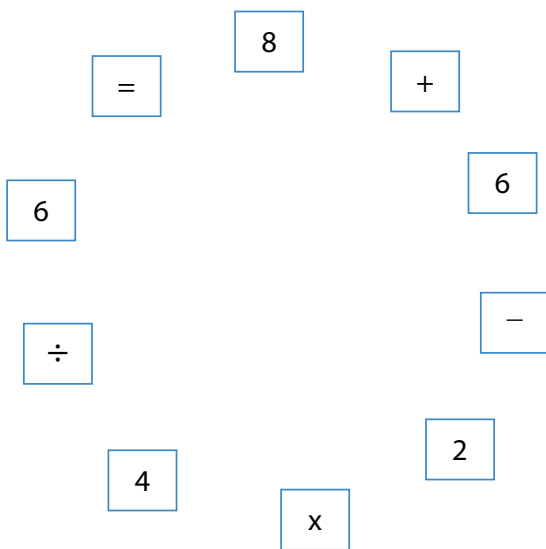
- 8 In the special offers, each item costs more than it does individually.
 Individually, 6 cans of Cola would cost £2.16.
 12 tins of beans would cost £5.40.
 4 packs of biscuits would cost £2.24.

Content Domains: Using decimals with money to compare calculations (4C3, 4C6a, 4C6b, 4C6c, 4C8)

- 9 a. 28 treats a week.
 b. 112 treats a month.
 c. 1456 treats a year.

Content Domains: Using related multiplication facts (4C3, 4C6a, 4C7, 4C8)

- 10 The circle should be completed as so:



Content Domains: Problem solving using all four operations (4C3, 4C4, 4C6a, 4C6b, 4C6c, 4C7, 4C8)

Challenge Question

The shortest route is: home – shop – post office – doctors – school = 18.9 km

Content Domains: Problem solving using all 4 operations (4C3, 4C4, 4C6a, 4C6b, 4C6c, 4C7, 4C8)