

Reasoning and Problem Solving

Step 19: Fraction of an Amount

National Curriculum Objectives:

Mathematics Year 5: (5C8c) [Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Use the number cards to complete the statement. Includes 2 missing numbers and unit fractions only.

Expected Use the number cards to complete the statement. Includes 4 missing numbers and non-unit fractions only.

Greater Depth Use the number cards to complete the statement. Includes 4 missing numbers and improper fractions.

Questions 2, 5 and 8 (Reasoning)

Developing Explain which statement or calculation is the odd one out. Includes unit fractions only.

Expected Explain which statement or calculation is the odd one out. Includes non-unit fractions only.

Greater Depth Explain which statement or calculation is the odd one out. Includes improper fractions.

Questions 3, 6 and 9 (Problem Solving)

Developing Calculate fractions of an amount to solve a word problem. Includes unit fractions only.

Expected Calculate fractions of an amount to solve a word problem. Includes non-unit fractions only.

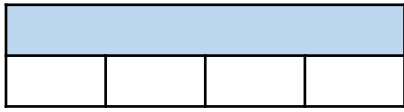
Greater Depth Calculate fractions of an amount to solve a word problem. Includes improper fractions.

More [Year 5 Fractions](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Fraction of an Amount

1a. Use the cards below to make the statement correct.



$\frac{1}{4}$ of is

4

12

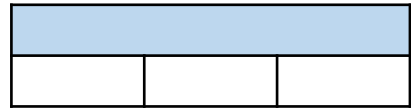
16



PS

Fraction of an Amount

1b. Use the cards below to make the statement correct.



$\frac{1}{3}$ of is

4

6

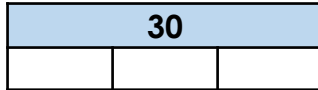
12



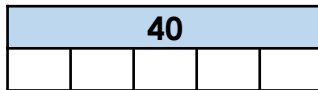
PS

2a. Circle the odd one out.

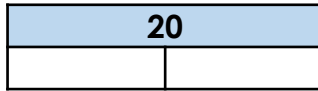
A. $\frac{1}{3}$ of 30



B. $\frac{1}{5}$ of 40



C. $\frac{1}{2}$ of 20



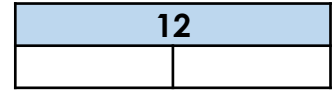
Explain your reasoning.



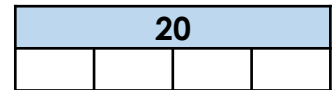
R

2b. Circle the odd one out.

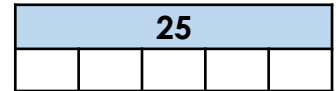
A. $\frac{1}{2}$ of 12



B. $\frac{1}{4}$ of 20



C. $\frac{1}{5}$ of 25

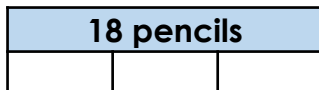
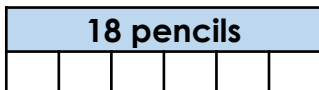


Explain your reasoning.



R

3a. There are 18 pencils in a pot.



Harry takes $\frac{1}{6}$ of them.



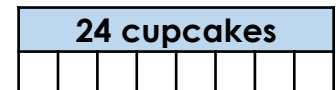
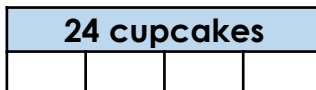
Alina takes $\frac{1}{3}$ of them.

How many pencils did they each take?
How many pencils are left?



PS

3b. There are 24 cupcakes at a party.



Josh eats $\frac{1}{4}$ of them.



Sarah eats $\frac{1}{8}$ of them.

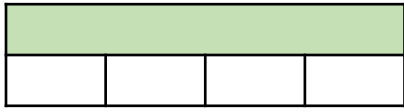
How many cupcakes did they each eat?
How many cupcakes are left?



PS

Fraction of an Amount

4a. Use the cards below to make the statement correct.



 of

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 is

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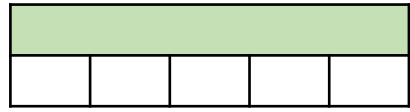
- 12 9 3 15 4



PS

Fraction of an Amount

4b. Use the cards below to make the statement correct.



 of

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 is

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- 15 5 12 3 20



PS

5a. Circle the odd one out.

A. $\frac{2}{3}$ of 2.4kg

2.4kg		

B. $\frac{3}{8}$ of 3.2kg

3.2kg							

C. $\frac{2}{3}$ of 1.8kg

1.8kg		

Explain your reasoning.



R

5b. Circle the odd one out.

A. $\frac{2}{3}$ of 0.18L

0.18L		

B. $\frac{3}{4}$ of 0.24L

0.24L			

C. $\frac{4}{5}$ of 0.15L

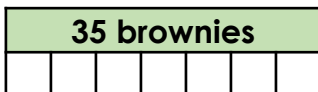
0.15L				

Explain your reasoning.



R

6a. There are 35 brownies at a bake sale.



Alex buys $\frac{2}{7}$ of them.



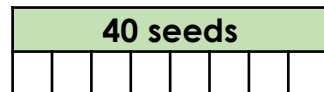
Suzie buys $\frac{4}{7}$ of them.

How many brownies did they each buy?
How many brownies are left?



PS

6b. There are 40 seeds in a packet.



Ivan plants $\frac{3}{8}$ of them.



Tanya plants $\frac{5}{8}$ of them.

How many seeds did they each plant?
How many seeds are left?

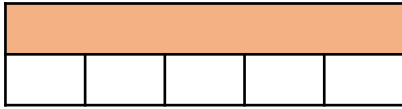


PS

Fraction of an Amount

Fraction of an Amount

7a. Use the cards below to make the statement correct. The fraction is improper.



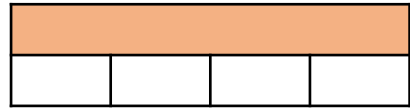
of is

5 65 25 3 13



PS

7b. Use the cards below to make the statement correct. The fraction is improper.



of is

4 84 12 3 28



PS

8a. Circle the odd one out.

A. $\frac{14}{3}$ of 0.9km

B. $\frac{14}{12}$ of 3.6km

C. $\frac{12}{5}$ of 3km

Explain your reasoning.



R

8b. Circle the odd one out.

A. $\frac{9}{4}$ of 3.2m

B. $\frac{10}{3}$ of 2.1m

C. $\frac{10}{6}$ of 4.2m

Explain your reasoning.



R

9a. A pack contains 24 pencils.



Jason needs 32 pencils.



Caitlin needs 40 pencils.

What improper fraction of a pack of pencils do they each need? Give your answer in its simplest form.
How many whole packs do they need to buy altogether?



PS

9b. There 15 sweets in a tube.



Oscar wants 21 sweets.



Amber wants 33 sweets.

What improper fraction of a tube of sweets do they each want? Give your answer in its simplest form.
How many whole tubes do they need to buy altogether?



PS

Reasoning and Problem Solving Fraction of an Amount

Developing

1a. $\frac{1}{4}$ of 16 is 4

2a. B is the odd one out because the answer is 8. A and C = 10

3a. Harry takes 3 and Alina takes 6. There are 9 pencils left.

Expected

4a. $\frac{3}{4}$ of 12 is 9

5a. A is the odd one out because the answer is 1.6kg (1,600g). B and C = 1.2kg (1,200g)

6a. Alex buys 10 and Suzie buys 20. There are 5 brownies left.

Greater Depth

7a. $\frac{13}{5}$ of 25 is 65

8a. C is the odd one out because the answer is 7.2km (7,200m). A and B = 4.2km (4,200m).

9a. Jason needs $\frac{4}{3}$ of a pack of pencils. Caitlin needs $\frac{5}{3}$ of a pack of pencils. $\frac{9}{3} = 3$ so they need to buy 3 whole packs of pencils.

Reasoning and Problem Solving Fraction of an Amount

Developing

1b. $\frac{1}{3}$ of 12 is 4

2b. A is the odd one out because the answer is 6. B and C = 5

3b. Josh eats 6 and Sarah eats 3. There are 15 cupcakes left.

Expected

4b. $\frac{3}{5}$ of 20 is 12

5b. B is the odd one out because the answer is 0.18L (180ml). A and C = 0.12L (120ml)

6b. Ivan plants 15 and Tanya plants 25. There are no seeds left.

Greater Depth

7b. $\frac{12}{4}$ of 28 is 84

8b. A is the odd one out because the answer is 7.2m (720cm). B and C = 7m (700cm)

9b. Oscar wants $\frac{7}{5}$ of a tube of sweets. Amber wants $\frac{11}{5}$ of a tube of sweets. $\frac{18}{5} = 3\frac{3}{5}$ so they need to buy 4 whole tubes of sweets.