Week 6 of 7

Fractions

Fractions of a set of objects (1)	R
Fractions of a set of objects (2)	R
Calculate fractions of a quantity	
Problem solving – calculate quantities	

Mon - Use Fractions of a set object (R)
Tues- Use Fractions of a set object (R)
Wed- Calculate Fractions of a quanity
Thurs- Problem solve
Fri - EOM


Wednesday

Monday

IALT: use fractions with quanity

1/2 of 60

1/2 of 6

1/2 of 8

Challenge

1/3 of 30

1/3 of 33

1/3 of 66

Alex is adding fractions.

$$\frac{3}{9}+\frac{2}{9}=\frac{5}{18}$$

Is she correct? Explain why.

1/10 of 60

1/10 of 40

1/10 of 100

https://www.topmarks.co.uk/maths-games/daily10

Calculate Fractions of a Quantity | **Diving**

Chen has 20 biscuits.

Use the counters above to represent Chen's biscuits and find:

$\frac{1}{2}$ of 20 =

$\frac{1}{4}$ of 20 =

$\frac{1}{5}$ of 20 =

$\frac{1}{10}$ of 20 =

Calculate Fractions of a Quantity

Diving

Chen has 20 biscuits.

Use the counters above to represent Chen's biscuits and find:

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

$\frac{1}{4}$ of 20 = 5

$\frac{1}{5}$ of 20 = 4

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

Calculate Fractions of a Quantity

Diving

Draw this bar model to find and represent:

36			
9	9	9	9

$\frac{1}{4}$ of 36 = 36 ÷ 4 = 9

$\frac{2}{4}$ of 36 =

$\frac{3}{4}$ of 36 =

$\frac{4}{4}$ of 36 =

Calculate Fractions of a Quantity

Diving

Draw this bar model to find and represent:

36			
9	9	9	9

$\frac{1}{4}$ of 36 = 36 ÷ 4 = 9

$\frac{2}{4}$ of 36 = 18

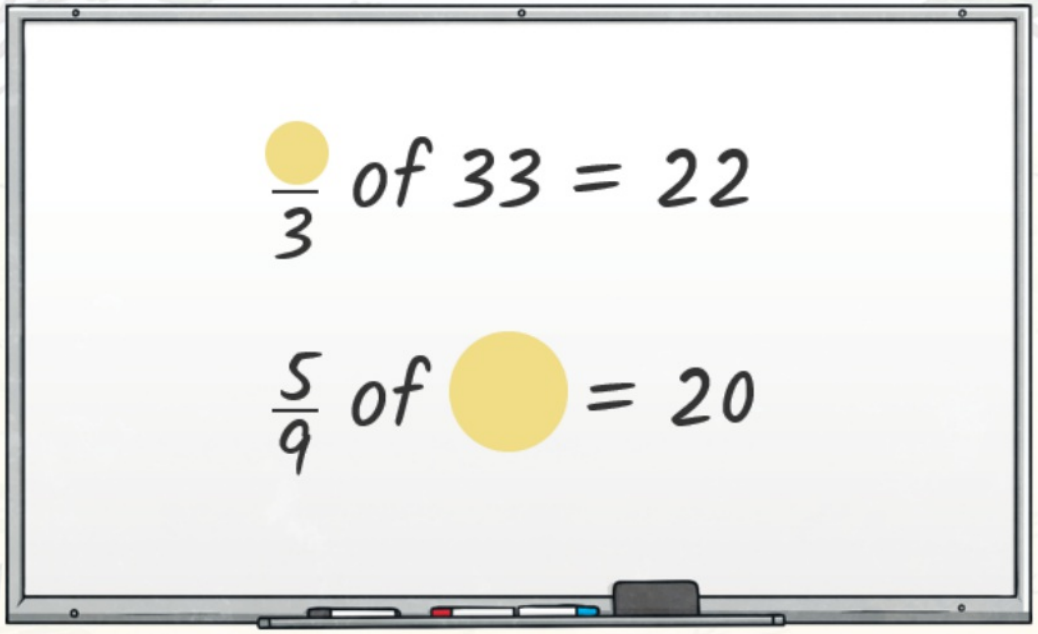
$\frac{3}{4}$ of 36 = 27

$\frac{4}{4}$ of 36 = 36

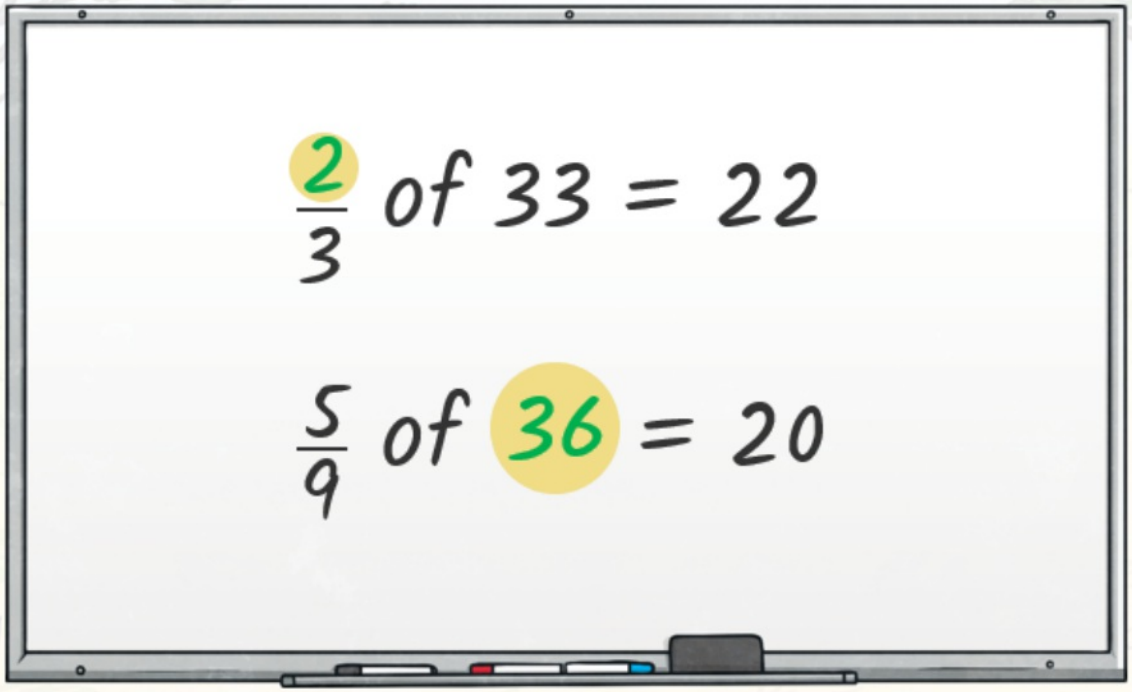
Calculate Fractions of a Quantity

Deeper

Complete the calculations.



Complete the calculations.



MILD

1) Clara has 16 cupcakes.

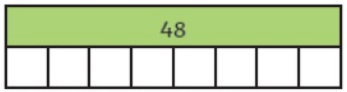
a) Use the counters above to represent Clara's cupcakes and find:

$\frac{1}{2}$ of 16 = ☐ $\frac{1}{4}$ of 16 = ☐ $\frac{1}{8}$ of 16 = ☐

b) Use the answers to the calculations above to help find:

$\frac{2}{2}$ of 16 = ☐ $\frac{3}{4}$ of 16 = ☐ $\frac{5}{8}$ of 16 = ☐

2) Use this bar model to find and represent:



$\frac{1}{8}$ of 48 = 48 ÷ 8 = ☐ $\frac{2}{8}$ of 48 = ☐

$\frac{3}{8}$ of 48 = ☐ $\frac{4}{8}$ of 48 = ☐ $\frac{5}{8}$ of 48 = ☐

$\frac{6}{8}$ of 48 = ☐ $\frac{7}{8}$ of 48 = ☐ $\frac{8}{8}$ of 48 = ☐

3) Draw a bar model to solve the problem.

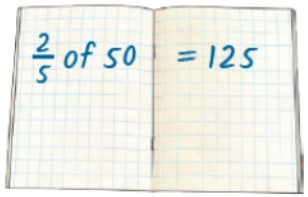
Finn drinks $\frac{5}{9}$ of a 630ml bottle of water.

a) How many ml did Finn drink?

b) How many ml are left in the bottle?

SPICY

1) Explain the mistake.



2) Which is the odd one out and why?

a) $\frac{3}{6}$ of 24 b) $\frac{2}{8}$ of 56 c) $\frac{4}{20}$ of 60

3) True or False? Convince me.

$\frac{3}{4}$ of 32 is greater than $\frac{12}{16}$ of 32.

4) Complete the calculations:

$\frac{☐}{5}$ of 30 = 24 $\frac{2}{3}$ of ☐ = 40

HOT HOT HOT

1) Moses has a bag of 20 double-sided counters. He throws some into the air. Half of them land on red while the other half land on yellow. Moses turns over two of the counters and now four-sixths are red.

How many counters did Moses throw into the air at the beginning?

2) Solve this problem.

Franz has a bag of 96 sweets. Some are red, $\frac{4}{12}$ are green and half are blue. What fraction and quantity are red?

3) Use all the digit cards once to complete this calculation.

0	1	2	3	8

$\frac{☐}{☐}$ of 270 = ☐

ANSWERS

1) a) $\frac{1}{2}$ of 16 = 8 $\frac{1}{4}$ of 16 = 4 $\frac{1}{8}$ of 16 = 2

b) $\frac{2}{2}$ of 16 = 16 $\frac{3}{4}$ of 16 = 12 $\frac{5}{8}$ of 16 = 10

2)

48							
6	6	6	6	6	6	6	6

$\frac{1}{8}$ of 48 = 48 ÷ 8 = 6

$\frac{2}{8}$ of 48 = 12 $\frac{3}{8}$ of 48 = 18 $\frac{4}{8}$ of 48 = 24 $\frac{5}{8}$ of 48 = 30

$\frac{6}{8}$ of 48 =36 $\frac{7}{8}$ of 48 =42 $\frac{8}{8}$ of 48 = 48

3)

630ml									
70	70	70	70	70	70	70	70	70	70

a) 350ml

b) 280ml

1) This is incorrect. They have divided the quantity (50) by the numerator (2) and then multiplied it by the denominator (5). The correct procedure is to divide by the denominator and multiply by the numerator.

50				
10	10	10	10	10

$\frac{2}{5}$ of 50 = 20

2) a) $\frac{3}{8}$ of 24 = 12

b) $\frac{2}{3}$ of 56 = 14

c) $\frac{4}{20}$ of 60 = 12

The odd one out is b) because it equals 14. Both a) and c) equal 12.

3) False. The fractions are equivalent because they both have a value of 24.

32															
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

32			
8	8	8	8

4) $\frac{4}{5}$ of 30 = 24 $\frac{2}{3}$ of 60 = 40

1) 12 counters.

$\frac{1}{2}$ of 12 counters is 6

6 counters + 2 = 8

12 ÷ 6 = 2

$\frac{1}{6}$ = 2

$\frac{6}{6}$ = 8

2)

96											
8	8	8	8	8	8	8	8	8	8	8	8

blue green red

Blue = $\frac{1}{2}$ = $\frac{6}{12}$ = 48 Green = $\frac{5}{12}$ = 32 Red = $\frac{2}{12}$ = 16

Answer: $\frac{2}{12}$ = 16 of the sweets are red.

3) $\frac{2}{3}$ of 270 = 180

Mild

Whitney eats $\frac{3}{8}$ of 240 g bar of chocolate.
How many grams of chocolate has she eaten?

Spicy

True or False?

To find $\frac{3}{8}$ of a number, divide by 3 and multiply by 8

Convince me.

Spicy

Mild

Whitney eats $\frac{3}{8}$ of 240 g bar of chocolate.
How many grams of chocolate has she eaten?

120

True or False?

To find $\frac{3}{8}$ of a number, divide by 3 and multiply by 8

Convince me.

Show Teacher