



Name: _____

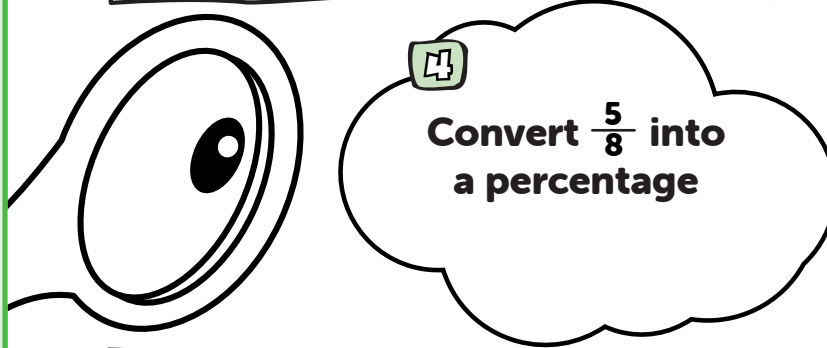
Class: _____

Date: _____

1 $8 \div \frac{2}{5} =$

2 Five sixths add seven ninths

3 Explain why 36% is less than $\frac{3}{8}$



5 Increase £32 by 15%

6 Write down a fraction between $\frac{1}{3}$ and $\frac{1}{2}$

7 Decrease 72m by 35%

8 A recipe for 6 people includes 750ml of orange juice. How many millilitres would be needed for 10 people?

9 There is a 30% sale. A boy paid £140 for a camera in the sale. What was the original price of the camera?

10 Divide 180 in the ratio 3:4:5



Name: _____

Class: _____

Date: _____

1 $10 \div \frac{2}{3} =$

2 Eight twelfths take away three eighths

3 Find 35% of 48Kg



4 $13\% \text{ of } 48 =$

5 Increase 56cm by 25%

6 Write down a fraction between $\frac{1}{4}$ and $\frac{1}{5}$

7 Decrease £87 by 10%

8 A recipe for 5 people includes 450g of flour. How many grams would be needed for 8 people?

9 There is a 25% discount in a sale. A girl paid £30 for a pair of jeans in the sale. What was the original price of the jeans?

10 Divide £91 in the ratio 1:2:4



Name: _____

Class: _____

Date: _____

1 $24 \times \frac{5}{8} =$

2 Seven sixteenths add three twelfths

3 Find 13% of 45ml

4 Convert 0.55 into a percentage

5 Increase £50 by 6%

6 How would you change any fraction to an equivalent percentage?

7 Decrease 450m by 5%

8 5 miles is approximately equal to 8km. What would 3 miles be approximately the same as?

9 There is a 10% discount in a sale. Mark pays £450 for a new TV in the sale. What was the original price of the TV?

10 If the ratio of boys to girls in a class is 3:1, could there be exactly 30 children in the class? Why?



Name: _____

Class: _____

Date: _____

1 $\frac{2}{3}$ of 8m =

2 Work out:
 $1\frac{3}{5} + 2\frac{3}{4}$

3 Find 27% of 63m

4 Change eight ninths into a decimal to two decimal places

5 Increase 72kg by 35%

6 Which is closest to $\frac{1}{3}$? 0.3 or 0.4?
Explain why.

7 Decrease £98 by just 1%

8 Mary pays £64 for a mobile phone in a sale that originally cost £80. What percentage discount did she get?

9 Ticket prices are increased by 10%. Ali now pays £8.80 for a ticket. What would he have paid before the increase?

10 The angles in a triangle are in the ratio 6:5:7. Find out the sizes of three angles.



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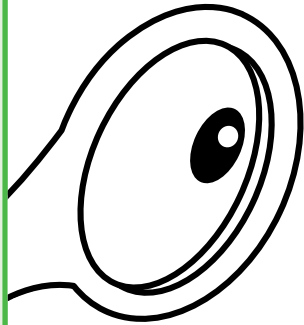
Class: _____

Date: _____

1 $12 \div \frac{3}{5} =$

2 $\frac{5}{6}$ add $\frac{3}{5}$
take away $\frac{2}{3}$

3 Ann says that 48% of £56 is £32.48. Explain why she must be wrong.



4 Write seven twelfths as a percentage. Give your answer to one decimal place.

5 Increase 68cm by 5%

6 Starting with one tenth = $0.1 = 10\%$. What other equivalences can you work out?

7 What is a quick way of decreasing any number by 5%?

8 The height of a plant has increased by 12cm from its original height of 0.8m. What is the percentage increase in height?

9 The value of Ann's car decreases by 25% when compared with what she paid for it 2 years ago. It is now worth £3600. What did she pay for the car?

10 Some money is shared between John and Ann in the ratio 3:5. John gets £24, how much does Ann receive?



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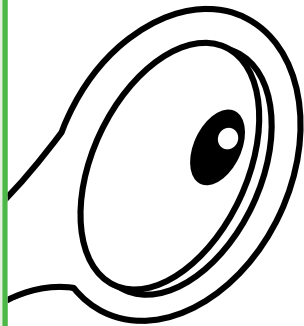
Class: _____

Date: _____

1 What is $32 \times \frac{7}{8}$?

2 Explain why $\frac{1}{3} + \frac{1}{2}$ does not equal $\frac{2}{5}$

3 Work out 98% of £40. Is there a quick way?



4 Put these in order: 64%, $\frac{2}{3}$, 0.7, $\frac{5}{8}$. Start with the smallest

5 Increase 88Kg by 55%

6 Write down a percentage between $\frac{2}{5}$ and 0.43

7 Decrease 90 by 2.5%

8 Imran scores 45 out of 60 in his maths test. The following week he scores 54 out of 60. What is the percentage increase between the two tests?

9 For one day only prices are reduced by 5%. Paul buys a digital radio for £38. What is the cost of the radio before this reduction?

10 £54 is shared between Steven and Ali so that Ali gets twice as much as Steven. How much does Ali get?



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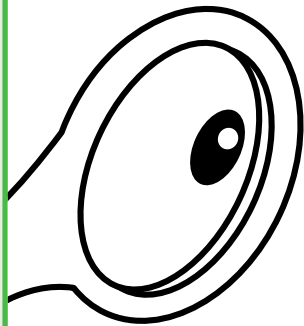
Class: _____

Date: _____

1 What is $\frac{5}{8}$ of 14cm?

2 Eight ninths take away five sixths

3 How could you work out $2\frac{1}{2}\%$ of a quantity?



4 Which is closest to $\frac{2}{3}$? 0.6 or 0.7? How do you know?

5 Increase 500ml by 0.5%

6 Write down a decimal between $\frac{1}{3}$ and 30%

7 Decrease 800ml by 70%

8 Jenny pours out 150ml of milk from a jug leaving 80% of the original amount of milk in the jug. How much milk was originally in the jug?

9 My weight has increased from 80kg to 84kg. What is the percentage increase in my weight?

10 The ratio of boys to girls in a class is 2:3. What fraction of the class are boys?



Name: _____

Class: _____

Date: _____

1

How many times does $\frac{3}{4}$ divide into 12?

2

Eight ninths take away five sixths

3

Is 30% of 42 the same as 42% of 30? Explain your answer.

4

If $\frac{3}{5}$ of X is £90, what is 5% of X?

5

Increase 420m by 105%

6

Would you prefer to have $\frac{2}{5}$ or $\frac{1}{2}$?

7

Jake says that to decrease any number by 20% you just multiply by 0.8. Is he right? Explain your answer.

8

I cut 70cm off a length of ribbon so that the ribbon is now 65% of its original length. What was the original length of the ribbon?

9

Jane buys a laptop computer for £400 and then sells it two years later for £240. What is her percentage loss?

10

Divide £4200 in the ratio 1:2:3



Name: _____

Class: _____

Date: _____

1

What is $\frac{3}{5}$ of 19kg?

2

Explain why equivalent fractions are important when adding and subtracting fractions.

3

Explain how to find a percentage of any number. Which are easy? Which are harder?

4

If $\frac{5}{6}$ of y is £25, what is $\frac{1}{2}$ of y ?

5

What is 200% of 78ml?

6

What fraction lies half-way between 0.4 and 48%?

7

Decrease 43kg by $\frac{1}{4}$

8

The number of pupils in my school has increased over the last 3 years from 600 to 630. What is the percentage increase in pupil numbers?

9

A bookshop offers a 15% discount if you buy more than two books. Tim buys 4 books and makes a saving of £3. How much would the books have cost Tim without this discount?

10

Potting compost is made from loam, peat and sand in the ratio 7:3:2. A gardener used 1.5 litres of peat to make compost. How much loam did she use?



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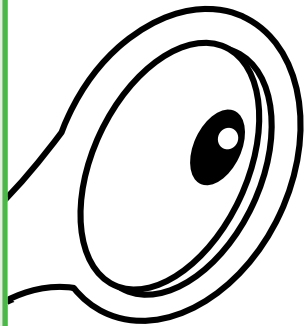
Class: _____

Date: _____

1 In a survey of 40 pupils, $\frac{3}{8}$ like basketball, $\frac{2}{5}$ like football and the rest like swimming. How many liked swimming?

2 Take $4\frac{2}{3}$ from $5\frac{1}{2}$

3 John says that if you increase something by 10% and then by another 10% it is the same as increasing it by 20%. Is he correct? Explain your thinking.



4 If $\frac{7}{8}$ of n is 63, what is $\frac{3}{4}$ of n ?

5 Increase 75 by 1%

6 What fraction lies half-way between $\frac{3}{8}$ and 0.75?

7 If I increase n by 30% I get 52. What is n ?

8 A shopkeeper reduces his prices by 10%. A week later he increases them by 10%. Are the prices now back to their original price? Explain your thinking.

9 Cheryl sells her old bicycle for £45 making a loss of 70% on what she originally paid for it. What was the original cost of the bicycle?

10 A sum of money is shared between Sue and David so that Sue gets 50% more than David. What is the ratio of David's share to Sue's share?



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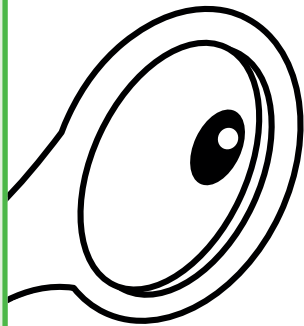
Class: _____

Date: _____

1 $8 \div \frac{2}{5} =$
20

2 Five sixths add seven ninths
 $1 \frac{11}{18}$

3 Explain why 36% is less than $\frac{3}{8}$
 $\frac{3}{8}$ equals 37.5% which is greater than 36%



4 Convert $\frac{5}{8}$ into a percentage
62.5%

5 Increase £32 by 15%
£36.80

6 Write down a fraction between $\frac{1}{3}$ and $\frac{1}{2}$
 $\frac{4}{10}$ $\frac{5}{12}$ $\frac{2}{5}$ $\frac{3}{8}$

7 Decrease 72m by 35%
46.8

8 A recipe for 6 people includes 750ml of orange juice. How many millilitres would be needed for 10 people?
1250ml

9 There is a 30% sale. A boy paid £140 for a camera in the sale. What was the original price of the camera?
£200

10 Divide 180 in the ratio 3:4:5
45 : 60 : 75



Name: _____

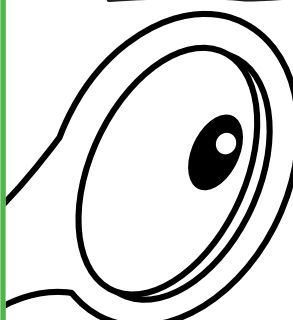
Class: _____

Date: _____

1 $10 \div \frac{2}{3} =$
15

2 Eight twelfths take away three eighths
 $\frac{7}{24}$

3 Find 35% of 48Kg
16.8kg



4 **13% of 48 =**
6.24

5 Increase 56cm by 25%
70cm

6 Write down a fraction between $\frac{1}{4}$ and $\frac{1}{5}$
 $\frac{2}{9}$ $\frac{9}{40}$ $\frac{3}{13}$ $\frac{3}{14}$

7 Decrease £87 by 10%
£78.30

8 A recipe for 5 people includes 450g of flour. How many grams would be needed for 8 people?
720g

9 There is a 25% discount in a sale. A girl paid £30 for a pair of jeans in the sale. What was the original price of the jeans?
£40

10 Divide £91 in the ratio 1:2:4
£13 : £26 : £52



Name: _____

Class: _____

Date: _____

1 $24 \times \frac{5}{8} =$
15

2 Seven sixteenths
add three twelfths
 $\frac{11}{16}$

3 Find 13% of
45ml
5.85ml

4 Convert 0.55 into
a percentage

55%

5 Increase £50 by 6%

£53

6 How would you
change any fraction
to an equivalent
percentage?
**Divide numerator by
denominator and multiply by
100**

7 Decrease 450m
by 5%
427.5m

8 5 miles is approximately
equal to 8km. What would 3
miles be approximately the
same as?
4.8km

9 There is a 10% discount in a sale.
Mark pays £450 for a new TV in
the sale. What was the original
price of the TV?
£500

10 If the ratio of boys to girls in a
class is 3:1, could there be exactly
30 children in the class? Why?
**No. There are 4 parts in the ratio
and 4 is not a factor of 30.**



Name: _____

Class: _____

Date: _____

1 $\frac{2}{3}$ of 8m =

5.33m

2 Work out:
 $1\frac{3}{5} + 2\frac{3}{4}$

 $4\frac{7}{20}$

3 Find 27% of
63m

17.01m

4 Change eight ninths
into a decimal to two
decimal places

0.89

5 Increase 72kg by 35%

97.2kg

6 Which is closest to
 $\frac{1}{3}$? 0.3 or 0.4?
Explain why.

**0.3. 0.3 is 0.033 from $\frac{1}{3}$
while 0.4 is 0.0067 away**

7 Decrease £98
by just 1%

£97.02

8 Mary pays £64 for a
mobile phone in a sale that
originally cost £80. What
percentage discount did she
get?

20%

9 Ticket prices are increased by
10%. Ali now pays £8.80 for a
ticket. What would he have paid
before the increase?

£8

10 The angles in a triangle are in
the ratio 6:5:7. Find out the
sizes of three angles.

60 : 50 : 70



Name: _____

Class: _____

Date: _____

1 $12 \div \frac{3}{5} =$

20

2 $\frac{5}{6}$ add $\frac{3}{5}$
take away

$$\frac{2}{3} \quad \frac{23}{30}$$

3 Ann says that 48% of £56 is £32.48. Explain why she must be wrong.

50% would be £28 so 48% can't be higher.

4

Write seven twelfths as a percentage. Give your answer to one decimal place.

0.6

5

Increase 68cm by 5%

71.4cm

6 Starting with one tenth = $0.1 = 10\%$. What other equivalences can you work out?

e.g. one fifth = $0.2 = 20\%$

7 What is a quick way of decreasing any number by 5%?

Divide by 10 and then half that

8 The height of a plant has increased by 12cm from its original height of 0.8m. What is the percentage increase in height?

15%

9 The value of Ann's car decreases by 25% when compared with what she paid for it 2 years ago. It is now worth £3600. What did she pay for the car?

£4, 800

10 Some money is shared between John and Ann in the ratio 3:5. John gets £24, how much does Ann receive?

£40



Name: _____

Class: _____

Date: _____

1 What is $32 \times \frac{7}{8}$?

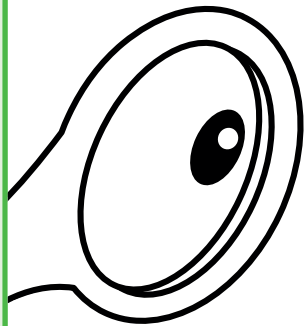
28

2 Explain why $\frac{1}{3} + \frac{1}{2}$ does not equal $\frac{2}{5}$

$\frac{1}{2}$ alone is greater than $\frac{2}{5}$

3 Work out 98% of £40. Is there a quick way?

£39.20. Find 1% (divide by 100) then take away 2 lots of that.



4 Put these in order: 64%, $\frac{2}{3}$, 0.7, $\frac{5}{8}$. Start with the smallest

$\frac{5}{8}$, 64%, $\frac{2}{3}$, 0.7

5 Increase 88Kg by 55%

136.4kg

6 Write down a percentage between $\frac{2}{5}$ and 0.43

41% 42%

7 Decrease 90 by 2.5%

87.75

8 Imran scores 45 out of 60 in his maths test. The following week he scores 54 out of 60. What is the percentage increase between the two tests?

15%

9 For one day only prices are reduced by 5%. Paul buys a digital radio for £38. What is the cost of the radio before this reduction?

£40

10 £54 is shared between Steven and Ali so that Ali gets twice as much as Steven. How much does Ali get?

£36



Name: _____

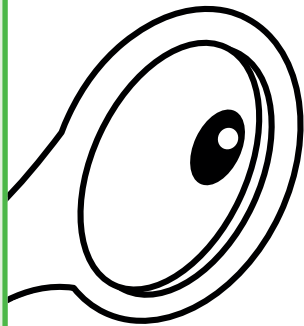
Class: _____

Date: _____

1 What is $\frac{5}{8}$ of 14cm?
8.75cm

2 Eight ninths take away five sixths
 $\frac{1}{18}$

3 How could you work out $2\frac{1}{2}\%$ of a quantity?
Divide by 10 then divide by 4



4 Which is closest to $\frac{2}{3}$? 0.6 or 0.7? How do you know?
 $0.7, \frac{2}{3}$ is 0.666

5 Increase 500ml by 0.5%
502.5ml

6 Write down a decimal between $\frac{1}{3}$ and 30%
0.32 0.31

7 Decrease 800ml by 70%
240ml

8 Jenny pours out 150ml of milk from a jug leaving 80% of the original amount of milk in the jug. How much milk was originally in the jug?
750ml

9 My weight has increased from 80kg to 84kg. What is the percentage increase in my weight?
5%

10 The ratio of boys to girls in a class is 2:3. What fraction of the class are boys?
 $\frac{2}{5}$



Name: _____

Class: _____

Date: _____

1

How many times does $\frac{3}{4}$ divide into 12?

16

2

Eight ninths take away five sixths

 $\frac{1}{18}$

3

Is 30% of 42 the same as 42% of 30? Explain your answer.

Yes. They are inverse sums, part of a fact family.

4

If $\frac{3}{5}$ of X is £90, what is 5% of X?

7.5

5

Increase 420m by 105%

441m

6

Would you prefer to have $\frac{2}{5}$ or $\frac{1}{2}$?

 $\frac{1}{2}$

7

Jake says that to decrease any number by 20% you just multiply by 0.8. Is he right? Explain your answer.

Yes. Multiplying by 0.8 gives 80% of a number.

8

I cut 70cm off a length of ribbon so that the ribbon is now 65% of its original length. What was the original length of the ribbon?

200cm / 2m

9

Jane buys a laptop computer for £400 and then sells it two years later for £240. What is her percentage loss?

40%

10

Divide £4200 in the ratio 1:2:3

£700 : £1400 : £2100



Name:

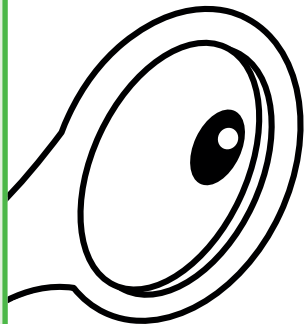
Class:

Date:

1 What is $\frac{3}{5}$ of 19kg?
11 $\frac{2}{5}$ **11.4**

2 Explain why equivalent fractions are important when adding and subtracting fractions.
The denominator must be the same to add and subtract fractions

3 Explain how to find a percentage of any number. Which are easy? Which are harder?
Multiply by the decimal value of the percentage.
Use % coin card.



4 If $\frac{5}{6}$ of y is £25, what is $\frac{1}{2}$ of y?
£15

5 What is 200% of 78ml?
156ml

6 What fraction lies half-way between 0.4 and 48%?
 $\frac{11}{25}$

7 Decrease 43kg by $\frac{1}{4}$
32.25kg

8 The number of pupils in my school has increased over the last 3 years from 600 to 630 What is the percentage increase in pupil numbers?
5%

9 A bookshop offers a 15% discount if you buy more than two books. Tim buys 4 books and makes a saving of £3. How much would the books have cost Tim without this discount?
£20

10 Potting compost is made from loam, peat and sand in the ratio 7:3:2. A gardener used 1.5 litres of peat to make compost. How much loam did she use?
3.5 litres





Name: _____

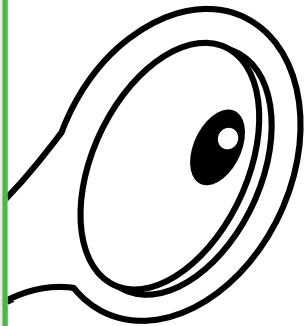
Class: _____

Date: _____

1 In a survey of 40 pupils, $\frac{3}{8}$ like basketball, $\frac{2}{5}$ like football and the rest like swimming. How many liked swimming? **9**

2 Take $4\frac{2}{3}$ from $5\frac{1}{2}$
 $\frac{5}{6}$

3 John says that if you increase something by 10% and then by another 10% it is the same as increasing it by 20%. Is he correct? Explain your thinking.
No. After the first 10% the number is 110% of the total. Another 10% makes 121%.



4 If $\frac{7}{8}$ of n is 63, what is $\frac{3}{4}$ of n?
54

5 Increase 75 by 1%
75.75

6 What fraction lies half-way between $\frac{3}{8}$ and 0.75?
 $\frac{9}{16}$

7 If I increase n by 30% I get 52. What is n?
40

8 A shopkeeper reduces his prices by 10%. A week later he increases them by 10%. Are the prices now back to their original price? Explain your thinking.
No. 10% off gives 90%. Adding 10% back gives 99%

9 Cheryl sells her old bicycle for £45 making a loss of 70% on what she originally paid for it. What was the original cost of the bicycle?
£150

10 A sum of money is shared between Sue and David so that Sue gets 50% more than David. What is the ratio of David's share to Sue's share?
2:3