



Name: \_\_\_\_\_

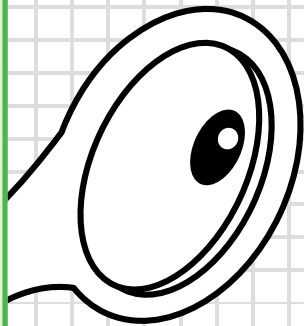
Class: \_\_\_\_\_

Date: \_\_\_\_\_

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

2 **Five sixths add seven ninths**

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



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

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 **750**ml 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



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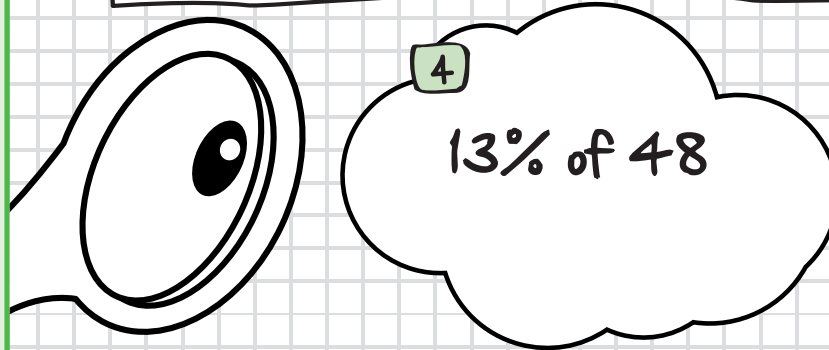
Class: \_\_\_\_\_

Date: \_\_\_\_\_

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

2 Eleven twelfths  
take away three eighths

3 Find 35% of  
48Kg



4  
13% 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 to 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?



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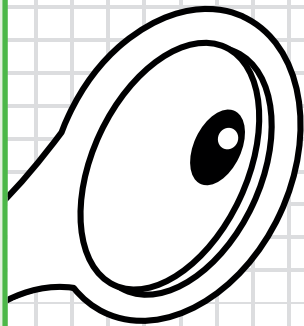
Class: \_\_\_\_\_

Date: \_\_\_\_\_

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

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

3 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 £880 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  
the three angles.



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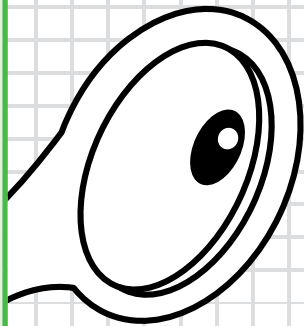
Class: \_\_\_\_\_

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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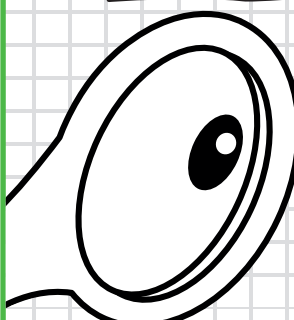
Class: \_\_\_\_\_

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,  $\frac{5}{8}$  starting with the smallest

5 Increase 88Kg by 55%.

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

7 Decrease 90 by 25%.

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?

MY LAST SCORE? .....

HAVE I BEAT THAT? .....



Name: \_\_\_\_\_

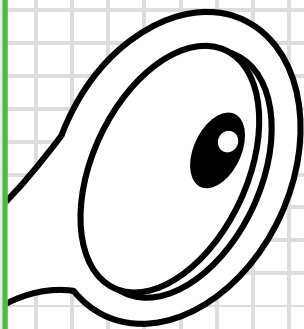
Class: \_\_\_\_\_

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?



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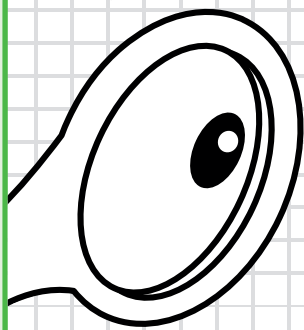
Class: \_\_\_\_\_

Date: \_\_\_\_\_

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

2 What is  $4\frac{1}{4} - 1\frac{2}{3}$ ?

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 Find 105% of 420m

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: \_\_\_\_\_

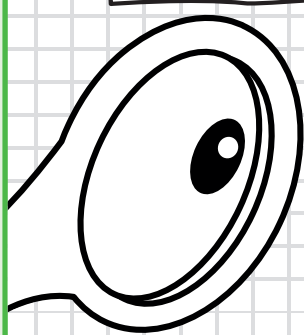
Class: \_\_\_\_\_

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 15 litres of peat to make compost. How much loam did she use?



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?

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?



Name: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

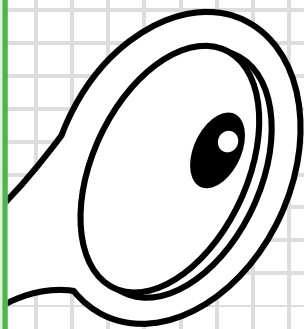
1  $8 \div \frac{2}{5} =$

**20**

2 **Five sixths add  
seven ninths**

 **$1 \frac{1}{18}$** 

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  $\frac{1}{2}$   
 **$\frac{4}{10}$   $\frac{2}{5}$   $\frac{3}{8}$**

7 Decrease 72m  
by 35%

**46.8**

8 A recipe for 6 people  
includes **750**ml 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 Eleven twelfths  
take away three eights

 **$1\frac{3}{24}$** 

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  $\frac{1}{5}$

 **$\frac{2}{9}$   $\frac{3}{13}$   $\frac{3}{14}$** 

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

 **$1\frac{1}{16}$** 

3 Find 13% of  
45ml

**5.85ml**

4 Convert 0.55 to 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 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 0.066 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 £880 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 the three angles.

**600 : 500 : 700**



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Class: \_\_\_\_\_

Date: \_\_\_\_\_

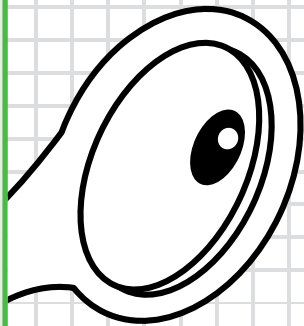
1  $12 \div \frac{3}{5} =$

**20**

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

 **$\frac{23}{30}$** 

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,  $\frac{5}{8}$   
starting 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%**

7 Decrease 90  
by 2.5%

**87.3**

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?

**20%**

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**

MY LAST SCORE?!

HAVE I BEAT THAT?!



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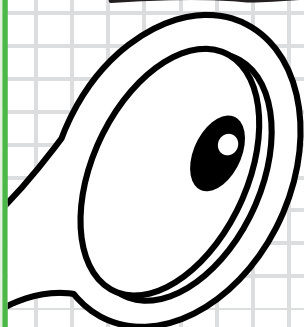
Class: \_\_\_\_\_

Date: \_\_\_\_\_

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

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%  
**0.31**

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 What is  $4\frac{1}{4} - 1\frac{2}{3}$ ?

 **$2\frac{7}{12}$** 

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

**Yes. They are inverse sums.  
Part of a fact family.**

5 Find 105% of 420m

**441m**

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

**7.5**

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

 **$\frac{1}{2}$** 

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  $\frac{2}{5}$**

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?

**Times by the decimal value of the percentage.**

5 What is 200% of 78ml?

**156ml**

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

**£15**

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

**$1\frac{1}{25}$**

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 15 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?

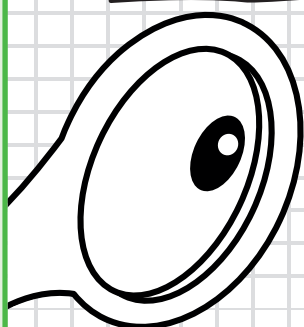
**9**

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**