Section A Fractions, Decimals and Percentages   Grade G → D

1.   Complete the table below.

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	
	0.7	70%
$\frac{3}{100}$		3%

(Total 3 marks)

2.   Write $22\frac{1}{2}\%$ as a fraction in its simplest form.

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Answer ....

(Total 3 marks)

3.   Which is larger, $\frac{7}{8}$ or 78% ?

Give a reason for your answer.

Answer …………………………………………………

Reason …………………………………………………………………………………….

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(Total 2 marks)

4. Circle each number that is less than one half.

0.21   52% $\dfrac{1}{3}$ 0.78 $\dfrac{3}{4}$ 35%

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(Total 3 marks)

5. (a) Write $\dfrac{1}{4}$ as a decimal.

Answer …………………………………………………

(1)

(b) Circle each value that is greater than $\dfrac{1}{2}$

43%   0.052 $\dfrac{3}{5}$ 6%   0.91

(2)
(Total 3 marks)

6. Write the following in order, starting with the smallest.

0.22 $\dfrac{3}{20}$ 19%

You **must** show your working.

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Answer .... , ... , ...

(Total 3 marks)

Success:	Target:

Teacher
Assessment

Section B   % of an Amount, Increase & Decrease   Grade E → C

1.   (a)   Work out 25% of 60

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Answer ....

(2)

(b)   Work out 25% of 30

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Answer ....

(1)

(Total 3 marks)

2.   Find   10% of £6.50

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Answer ....pence

(Total 1 mark)

3.   Work out 20% of 155.

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Answer £ …………………………………….

(Total 2 marks)

4.   Find 30% of 200 metres.

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Answer .... metres

(Total 2 marks)

5.   Work out 70% of 90.

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Answer ....

(Total 2 marks)

6. Work out 1% of £21 350.

Answer £ ....

(Total 2 marks)

7. Calculate 36% of £420.

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Answer £ ....

(Total 2 marks)

8.

60% of £40	$\dfrac{2}{5}$ of £55

Which is the larger amount?   You **must** show your working.

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Answer ....

(Total 4 marks)

9. Kath knows a quick way to work out 15% of any amount of money.

To work out 15% of £160

10% of £160 = £16
So 5% of £160 = £8
So 15% of £160 = £24

Use Kath's method to work out 15% of £420.

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Answer £ ....

(Total 3 marks)

10. Mrs Brown's bill for servicing her car is £96 plus VAT.
VAT is charged at 17.5%.   What is her total bill?

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Answer £ ....

(Total 3 marks)

11. Simon uses this method to work out $87\frac{1}{2}$ % of 240.

$$50 \text{ \% of } 240 = 120$$
$$25 \text{ \% of } 240 = 60$$
$$12\frac{1}{2} \text{ \% of } 240 = 30$$

Adding $87\frac{1}{2}$ % of 240 = 210

(a)   Use Simon's method to work out $87\frac{1}{2}$ % of 96.   You **must** show your working.

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Answer ……………………………………………………..

(2)

(b)   Pete says that he can work out $93\frac{3}{4}$ % of 240 by using Simon's method with one extra
step. Explain how Pete can do this.

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(2)
(Total 4 marks)

12. Jim receives his electricity bill.
The bill is for £140 plus VAT at 5%.

    (a) Calculate the VAT.

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Answer £ …………………………….

(2)

    (b) Hence find the total amount which Jim has to pay.

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Answer £ ....

(1)
(Total 3 marks)

13. The price of a computer is £840.
In a sale the price is reduced by 15%.

What is the sale price?

....

....

Answer £ ....

(Total 3 marks)

Success:

Target:

Teacher
Assessment

Section C   One Quantity as a % of Another   Grade D / C

1.   For every £50 spent on petrol, £37 of this is tax.   Work out £37 as a percentage of £50.

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Answer …………………………………………………… %

(Total 2 marks)

2.   Beth has 400 roses. 48 are yellow. What percentage of the roses are yellow?

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Answer .... %

(Total 2 marks)

3.   Write 40 out of 500 as a percentage.

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...................…………………………………………………………………………

Answer .... %

(Total 2 marks)

4.   Of 400 people, 240 are female.   What percentage are female?

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Answer .... %

(Total 2 marks)

5.   Shahid gains 24 marks out of 40 in the test.

Work out his mark as a percentage.

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Answer .... %

(Total 2 marks)

6.   What is 80 as a percentage of 500?

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Answer .... %

(Total 2 marks)

7.   Of 800 pupils, 320 are girls. What percentage of the pupils are girls?

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....

Answer .... %

(Total 2 marks)

8.   What percentage is £108 of £150?

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Answer .... %

(Total 2 marks)

9.   50 people were asked how they travel to work. Some of the results are shown in the table.

Method of travel	Number of people
Car	23
Train	
Bicycle	8
Walk	5

Calculate the percentage of these people who travelled by train.

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Answer ....%

(Total 3 marks)

Success:	Target:

Teacher Assessment

Section D   Finding the % Change – Non-Calc   Grade C

1. Karl was given £8 pocket money each week in 2004.
In 2005, his pocket money was decreased to £6 each week.

   Calculate the percentage decrease in Karl's pocket money.

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   ....

   Answer .... %

   (Total 3 marks)

2. A train is travelling at 60 miles per hour.
The train increases its speed to 81 miles per hour.

   Calculate the percentage increase in the speed of the train.

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   Answer ....%

   (Total 3 marks)

3. Mike bought 400 books for £150 to sell at a Saturday market.
He sold the books for £180.

   What was Mike's percentage profit?

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   Answer ....%

   (Total 3 marks)

4. In 1974 the number of students in a college was 5000.
This year the number of students is 5750.

What is the percentage increase in the number of students in the college?

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....

Answer .... %

(Total 3 marks)

5. Simon weighed 3.6 kg when he was born.
One year later he weighed 10.8 kg.

Calculate the percentage increase in his weight.

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Answer ....%

(Total 3 marks)

Success:	Target:
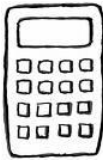
Section E   Finding the % Change - Calculator   Grade C

1.   Karl was given £3.20 pocket money each week in 2004.
     In 2005, his pocket money was increased to £3.90 each week.

     Calculate the percentage increase in Karl's pocket money.

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                              Answer .... %

                                                              (Total 3 marks)

2.   Jane earns £11 400 per year. After her pay rise she earns £12 198 per year.

         What was her percentage pay rise?

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         ....

                              Answer ....%

                                                              (Total 3 marks)

3.   Michael works in a toy store.He earns £208 each week.
     After a pay rise, Michael's weekly wage increases to £218.40 each week.

     Calculate the percentage increase in Michael's weekly wage.

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                              Answer ....%

                                                              (Total 3 marks)

4.   Simon weighed 3.7 kg when he was born.One year later he weighed 10.9 kg.

     Calculate the percentage increase in his weight.

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                              Answer ....%

                                                              (Total 3 marks)

5. The price of a roll of film is reduced from £4 to £3.50

Calculate the reduction as a percentage of the original price.

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Answer …………………………………………………… %

(Total 3 marks)

6. A year ago Vicky weighed 151 lb. She now weighs 164 lb.

Calculate the percentage increase in Vicky's weight.

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Answer .... %

(Total 3 marks)

7. Jenny buys a CD for £16.50 Six months later Jenny sells the CD for £13.20

What is the percentage decrease in the value of the CD?

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....

Answer .... %

(Total 3 marks)

8. Mike bought 400 books for £150 to sell at a Saturday market. He sold the books for £281.

What was Mike's percentage profit?

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Answer ....%

(Total 3 marks)

9. In 1974 the number of students in a college was 5000.
This year the number of students is 5750.

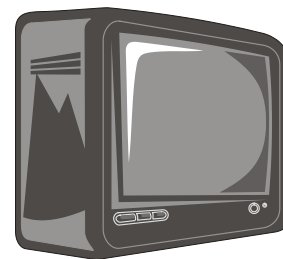What is the percentage increase in the number of students in the college?

....

....

Answer .... %

(Total 3 marks)

10. A shop advertises a special offer.

Portable Television

Was £90

Now £69
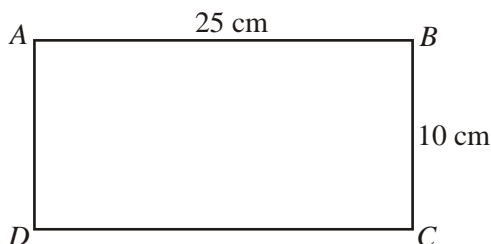
Find the percentage reduction in the cost of the television.

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Answer .... %

(Total 3 marks)

11. *ABCD* is a rectangle with length 25 cm and width 10 cm.

A ——— 25 cm ——— *B*

10 cm

D ——— *C*

Not to scale

The length of the rectangle is increased by 10%. The width of the rectangle is increased by 20%.
Find the percentage increase in the area of the rectangle.

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Answer .... %

(Total 3 marks)

Success:

Target:

Teacher
Assessment
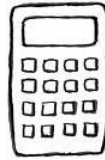
| **Section F** | **Using Multipliers** | **Grade D / C** |

1.   Work out   28% of 32

…………………………………………………………………………………………

…………………………………………………………………………………………

Answer …………………………………………………………

(Total 2 marks)

2.   Calculate 36% of £420.

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....

Answer £ ....

(Total 2 marks)

3.   Work out 38% of £146.

....

....

Answer £ ………………………..…………………

(Total 2 marks)

4.   (a)   Work out 32% of £9.50

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Answer £ ....

(2)

(b)   Decrease £9.50 by 32%

....

Answer £ ....

(1)(Total 3 marks)

5.   Liz says that 34% of 250 and 25% of 340 are equal. Is she correct? Explain your answer.

Answer ....

Explanation..

....

....

(Total 3 marks)

6. Mr and Mrs Smith are buying a washing machine.

SALE
15% OFF
Washing Machine
Was £380
Save £

How much do they save in the sale?

....…......................

....…....................

Answer £ ....

(Total 2 marks)

7. Last year a company had 80 employees.
This year the number of employees is 35% more.

How many employees are there this year?

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Answer …………………………………………

(Total 3 marks)

8. The price of a white fridge is £250.
A silver fridge costs 8% more than the white fridge.

Calculate the **extra** cost of the silver fridge.

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Answer £ ....

(Total 2 marks)

9. Jim buys furniture for £74.40.
Delivery will cost Jim an extra 5%.

How much is the delivery charge?

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Answer £ ....

(Total 2 marks)

10. Miss Evans earns £240 per week.
She is awarded a pay rise of 3.5%.
How much does she earn each week after the pay rise?

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Answer £ ....

(Total 3 marks)

11. A year ago, Mark was 185 cm tall. He is now 4.3% taller. How tall is Mark now?

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....……………………………………………………………………

....……………………………………………………………………

....……………………………………………………………………

Answer .... cm

(Total 3 marks)

12. The price of a computer is £840.
In a sale the price is reduced by 15%.

What is the sale price?

....

....

Answer £ ....

(Total 3 marks)

13. Mrs Brown's bill for servicing her car is £96 plus VAT.
VAT is charged at 17.5%.

What is her total bill?

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Answer £ ....

(Total 3 marks)

14. George invests £2000 in a bank account.
The account pays 4% simple interest each year.

How much interest is earned after 3 years?

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Answer £ ....

(Total 3 marks)

Success:	Target: