

# Fractions, Decimals & Percentages (F)

A collection of 9-1 Maths GCSE Sample and Specimen questions from AQA, OCR, Pearson-Edexcel and WJEC Eduqas.

Name:	LEANNE SNOW
Total Marks:	@ LEANNE SNOW ANSWERS

1. Write these in order, smallest first.

$0.34$      $\frac{1}{3}$      $3.5\%$   
 $= 0.3$      $\frac{1}{3} = 0.333$      $3.5\% = 0.035$   
 $0.035 < 0.3 < 0.333$   
 $3.5\% < \frac{1}{3} < 0.34$

2. Charlie, Mo and Andrzej share a flat.

- Charlie pays 25% of the rent.
- Mo pays  $\frac{1}{2}$  of the rent.
- Andrzej pays £450. = 25%

How much do they pay altogether for the rent?

$25\% = 450$   
 $100\% = 450 \times 4$   
 $= £1800$

£ 1800 ..... [4]

3. Katy organised a wedding.

Guests had to choose their meal from pasta, chicken or beef.

$\frac{1}{3}$  of the guests chose pasta. =  $\frac{4}{12}$

$\frac{5}{12}$  of the guests chose chicken. =  $\frac{5}{12}$

24 of the guests chose beef. =  $\frac{3}{12}$

How many guests were at the wedding?

$\frac{3}{12} = 24$   
 $\frac{1}{12} = 8$   
 $\frac{12}{12} = 96$

96 guests

4. Here are four numbers. = 0.428...

$0.43$      $\frac{3}{7}$      $43.8\%$      $\frac{7}{16}$   
 $0.43$      $0.42857$      $43.8\%$      $0.4375$

Write these numbers in order of size.

Start with the smallest number.

$\frac{3}{7}, 0.43, \frac{7}{16}, 43.8\%$

5. Write 0.8 as a percentage.

80 ..... % [1]

6. Write 0.075 as a fraction.

Give your fraction in its simplest form.

$\frac{75}{1000} = \frac{3}{40}$

7. Write  $\frac{7}{16}$  as a decimal.

0.4375 ..... [2]

8. Write 0.19 as a fraction.

$\frac{19}{100}$  ..... [1]

9. Write  $\frac{3}{5}$  as a percentage.

$\frac{3}{5} = \frac{60}{100}$

60 ..... % [1]

10. Amelia, Hayden and Sophie did a test.

The total for the test was 75 marks.

Amelia got 56% of the 75 marks.

Hayden got  $\frac{8}{15}$  of the 75 marks.

Sophie got 43 out of 75

Who got the highest mark?

You must show all your working.

A:  $0.56 \times 75 = 42$  marks  
 M:  $8/15 \times 75 = 40$  marks  
 S: 43 marks  
 ∴ Sophie got the highest.

[3]

The different mixtures are

A salt : water = 3 : 22 =  $\frac{3}{25} = 0.12$

B salt =  $\frac{1}{8} = 0.125$

C salt = 12.75% = 0.1275

Which cup has the greatest proportion of salt?

You must show your working.

Cup C has the greatest proportion of salt.

[3]

12. Circle the decimal that is closest in value to  $\frac{2}{3}$

- 0.6    0.66    0.667    0.67

[1]

13. What is  $\frac{1}{5}$  as a percentage?

Circle your answer.

- 1.5%    5%    15%    20%

[1]

14. What is 0.9 as a percentage?

Circle your answer.

- 0.009%    0.09%    9%    90%

[1]

15. What is the value of the digit 7 in 3.72?

Circle your answer.

[1]

- $\frac{1}{70}$      $\frac{7}{10}$      $\frac{1}{7}$      $\frac{7}{100}$

16. Circle the decimal that has the same value as  $\frac{4}{5}$

[1]

- 0.04    0.4    0.45    0.8

17. Shafira had collected £720 in a sponsored event.

She gave  $\frac{1}{2}$  of the amount collected to her local youth club. = 360

She gave 40% of the amount collected to a children's hospital. = 288

She gave the rest of the money to a mountain rescue group.

(a) How much money did Shafira give to the mountain rescue group?

$720 - 360 - 288 = 72$

[3]

(b) What percentage of the £720 did Shafira give to the mountain rescue group?

10%.

[2]

18. Write 0.9 as a percentage.

90

.....% [1]

19. Write 0.21 as a fraction.

$\frac{21}{100}$

[1]

20. There are 500 passengers on a train.

$$\frac{7}{20} \text{ of the passengers are men. } = 175$$

$$40\% \text{ of the passengers are women. } = 200$$

The rest of the passengers are children.

Work out the number of children on the train.

$$500 - 200 - 175 = 125 \text{ children}$$

[3]

21. Circle the percentage that is greater than  $\frac{3}{4}$  and less than  $\frac{4}{5}$

$$= 75\% \text{ } = 80\%$$

75%

80%

82%

[1]

b) Circle the fraction that is greater than 0.3 and less than 0.4

$\frac{1}{4}$

$\frac{1}{3}$

$\frac{3}{10}$

$\frac{1}{2}$

$$= 0.25$$

$$= 0.33$$

$$= 0.3$$

$$= 0.5$$

[1]