

FRACTIONS, DECIMALS AND PERCENTAGES

Pearson Edexcel - Tuesday 19 May 2020 - Paper 1 (Non-Calculator) Foundation Tier

1.

4 Write $\frac{3}{4}$ as a decimal.

.....
(Total for Question 4 is 1 mark)

Pearson Edexcel - Thursday 4 June 2020 - Paper 2 (Calculator) Foundation Tier

2.

1 Write 0.37 as a fraction.

.....
(Total for Question 1 is 1 mark)

3.

4 Write $\frac{1}{4}$ as a percentage.

.....%

(Total for Question 4 is 1 mark)

4.

16 An exam has two papers, Paper 1 and Paper 2

Paper 1 has 60 marks.

Paper 2 has 90 marks.

The pass mark is $\frac{2}{3}$ of the total number of marks.

Danielle gets 70% of the marks for Paper 1

How many of the marks for Paper 2 must Danielle get in order to get the pass mark?

(Total for Question 16 is 4 marks)

Pearson Edexcel - Monday 8 June 2020 - Paper 3 (Calculator) Foundation Tier

5.

3 Write 40% as a fraction.

(Total for Question 3 is 1 mark)

Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Foundation Tier

6.

2 Write 0.73 as a percentage.

..... %

(Total for Question 2 is 1 mark)

Pearson Edexcel - Thursday 6 June 2019 - Paper 2 (Calculator) Foundation Tier

7.

1 Write 0.75 as a fraction.

.....

(Total for Question 1 is 1 mark)

Pearson Edexcel - Tuesday 11 June 2019 - Paper 3 (Calculator) Foundation Tier

8.

5 Write 19% as a fraction.

.....

(Total for Question 5 is 1 mark)

Pearson Edexcel - Tuesday 6 November 2018 - Paper 1 (Non-Calculator) Foundation Tier

9.

2 Write 0.6 as a percentage.

..... %

(Total for Question 2 is 1 mark)

Pearson Edexcel - Thursday 8 November 2018 - Paper 2 (Calculator) Foundation Tier

10.

5 Write 0.31 as a fraction.

.....

(Total for Question 5 is 1 mark)

Pearson Edexcel - Monday 12 November 2018 - Paper 3 (Calculator) Foundation Tier

11.

2 Write 3% as a fraction.

.....

(Total for Question 2 is 1 mark)

Pearson Edexcel - Thursday 24 May 2018 - Paper 1 (Non-Calculator) Foundation Tier

12.

- 3** Write 20% as a fraction.

.....
(Total for Question 3 is 1 mark)

Pearson Edexcel - Thursday 7 June 2018 - Paper 2 (Calculator) Foundation Tier

13.

- 1** Write $\frac{4}{50}$ as a percentage.

.....%

(Total for Question 1 is 1 mark)

Pearson Edexcel - Tuesday 12 June 2018 - Paper 3 (Calculator) Foundation Tier

14.

- 1** Write $\frac{9}{10}$ as a decimal.

.....

(Total for Question 1 is 1 mark)

15.

- 2** Write 0.3 as a percentage.

.....%

(Total for Question 2 is 1 mark)

Pearson Edexcel - Monday 6 November 2017 - Paper 2 (Calculator) Foundation Tier

16.

1 Write $\frac{7}{100}$ as a decimal.

.....
(Total for Question 1 is 1 mark)

Pearson Edexcel - Wednesday 8 November 2017 - Paper 3 (Calculator) Foundation Tier

17.

23 (a) Find the value of the reciprocal of 1.6
Give your answer as a decimal.

.....
(1)

Jess rounds a number, x , to one decimal place.
The result is 9.8

(b) Write down the error interval for x .

.....
(2)

(Total for Question 23 is 3 marks)

Pearson Edexcel – Specimen 2 - Paper 1 (Non-Calculator) Foundation Tier

18.

2 Write 0.8 as a percentage.

..... %

(Total for Question 2 is 1 mark)

19.

9 Here are five fractions.

$$\frac{2}{8} \quad \frac{10}{40} \quad \frac{12}{48} \quad \frac{5}{24} \quad \frac{20}{80}$$

One of these fractions is **not** equivalent to $\frac{1}{4}$

(a) Write down this fraction.

.....
(1)

(b) Work out $\frac{2}{7} + \frac{1}{14}$

.....
(2)

(c) Work out $\frac{4}{5} \div \frac{3}{10}$

Give your answer in its simplest form.

.....
(2)

(Total for Question 9 is 5 marks)

Pearson Edexcel – Specimen 2 - Paper 2 (Calculator) Foundation Tier

20.

- 3** Write 0.075 as a fraction.
Give your fraction in its simplest form.

.....
(Total for Question 3 is 2 marks)

21.

8 Rachel carried out a survey of 10 people to find out the type of fruit they like best.

The table gives information about her results.

Type of fruit	Number of people
apple	2
banana	5
orange	3

(a) Which type of fruit is the mode?

.....
(1)

In Rachel's survey, 2 out of 10 people like apples best.

(b) Write 2 out of 10 as a percentage.

.....%
(1)

Pete also carried out a survey to find out the type of fruit people like best. He asked 30 people which type of fruit they like best.

He drew this pie chart for his results.

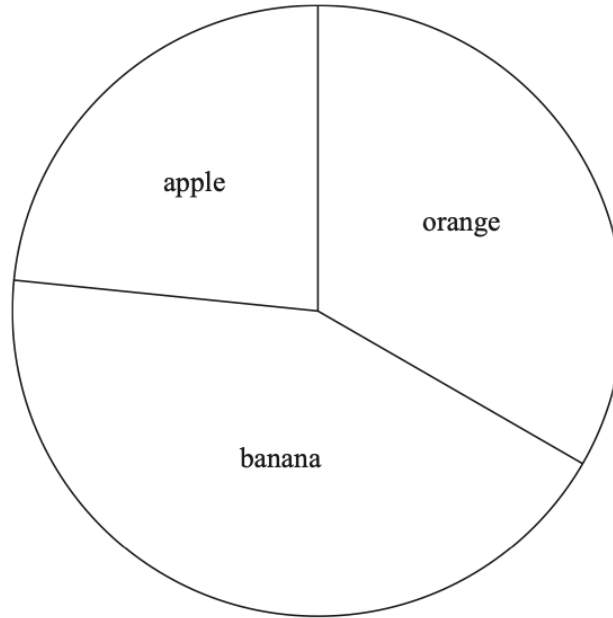


Diagram accurately drawn

A smaller proportion of people like bananas best in Pete's survey than in Rachel's survey.

(c) Explain how Pete's pie chart and Rachel's table show this.

.....

.....

.....

(2)

(Total for Question 8 is 4 marks)

Pearson Edexcel – Specimen 2 - Paper 3 (Calculator) Foundation Tier

22.

2 Write 0.19 as a fraction.

.....

(Total for Question 2 is 1 mark)

23.

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

..... %

(Total for Question 5 is 1 mark)

24.

17 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.

(Total for Question 17 is 3 marks)

Pearson Edexcel – Specimen 1 - Paper 1 (Non-Calculator) Foundation Tier

25.

4 Write 0.9 as a percentage.

.....%

(Total for Question 4 is 1 mark)

Pearson Edexcel – Specimen 1 - Paper 2 (Calculator) Foundation Tier

26.

3 Write 0.21 as a fraction.

.....

(Total for Question 3 is 1 mark)

27.

7 Work out 70% of £90

£.....

(Total for Question 7 is 2 marks)

Pearson Edexcel – Specimen 1 - Paper 3 (Calculator) Foundation Tier

28.

- 3 Work out the reciprocal of 0.125

.....
(Total for Question 3 is 1 mark)

OCR – Tuesday 03 November 2020- Morning - Paper 1 (Calculator) Foundation Tier

29.

- 4 (a) Write 2% as a decimal.

(a) [1]

- (b) Write $\frac{11}{20}$ as a percentage.

(b) % [1]

30.

- 5 Use one of the symbols <, = or> to make each statement true.

(a) 0.7 $\frac{2}{3}$ [1]

(b) 27.06 27.59 [1]

OCR Thursday 05 November 2020- Morning (Non-Calculator) Foundation Tier

31. 3 (a) Complete each statement by writing the missing value in the box.

(i) $\frac{1}{3} = \frac{2}{\square}$ [1]

(ii) $1\frac{1}{7} = \frac{\square}{7}$ [1]

(b) Work out.

(i) $0.8 \div 2$

(b)(i) [1]

(ii) 1.7×2

(ii) [1]

32.

4 (a) Write 0.16 as a fraction in its simplest form.

(a) [2]

(b) Write $\frac{7}{20}$ as a decimal.

(b) [2]

OCR November 09 November 2020- Morning (Calculator) Foundation Tier

33.

6 (a) Work out 70% of 50.

(a) [2]

(b) Beth multiplies a number by 3 and divides the answer by 10.

By what fraction has the number been reduced?

(b) [2]

(c) Find a fraction which is bigger than $\frac{3}{7}$ and smaller than $\frac{4}{7}$.

(c) [2]

34.

- 8 (a) Jo walks every day.
This week she walked an average of 2300 steps a day.
Next week she plans to increase this by 15%.

Work out how many steps she plans to walk in **total** next week?

(a) [4]

- (b) Jo buys a pair of walking boots for £63 in a sale.
She saves $\frac{1}{10}$ of the original price of the boots.

Work out how much money Jo saves.

(b) £ [3]

OCR Thursday 07 November 2019- Morning (Non-Calculator) Foundation Tier

35.

3 Complete each statement by writing the missing value in the box.

(a) $\frac{2}{5} = \frac{4}{\square}$ [1]

(b) $2\frac{1}{3} = \frac{\square}{3}$ [1]

(c) $7 \times 7 \times 7 \times 7 \times 7 = 7^{\square}$ [1]

36.

4 Work out.

(a) $\frac{5}{6}$ of 18 kg

(a) kg [2]

(b) £5 – £1.49

(b) £ [1]

(c) $0.15 \div 5$

(c) [1]

37.

4

5 (a) Write 0.3 as a fraction.

(a) [1]

(b) Write $\frac{1}{4}$ as a decimal.

(b) [1]

38.

7 Work out the following, giving each answer as a fraction.

(a) $1\frac{3}{4} + \frac{1}{2}$

(a) [1]

(b) $\frac{3}{8} \div 2$

(b) [1]

(c) $\frac{1}{3} \times \frac{1}{2}$

(c) [1]

39.

19 On a plane, $\frac{2}{5}$ of the passengers were British.

30% of the British passengers were men.
There were 36 British men on the plane.

Find the total number of passengers on the plane.

..... [5]

OCR Tuesday 21 May 2019 – Morning (Calculator) Foundation Tier

40.

3 Complete this table of fractions, decimals and percentages.

Fraction		Decimal		Percentage
$\frac{1}{4}$	=		=	25%
$\frac{7}{100}$	=	0.07	=	
	=	1.3	=	130%

[3]

41.

- 12 Jack and Alex take rubbish to be recycled.
Jack takes 520 kilograms, 87% of which can be recycled.
Alex takes 750 kilograms, 61% of which can be recycled.

Calculate who takes the greatest amount of rubbish that can be recycled and by how much.

..... by kg [3]

OCR Thursday 6 June 2019 – Morning (Non-Calculator) Foundation Tier

42.

1 (a) Work out.

(i) $£4.25 + £5.18$

(a)(i) £ [1]

(ii) $-8 + 11$

(ii) [1]

(iii) -6×-9

(iii) [1]

(b) Use one of these symbols $<$, $>$ or $=$ to make each statement true.

(i) 4.5 4.34 [1]

(ii) $\frac{3}{4}$ 0.8 [1]

(iii) $\frac{3}{5}$ 0.6 [1]

43.

4 Work out.

(a) 0.7×0.3

(a) [1]

(b) $0.48 \div 6$

(b) [1]

OCR Thursday 8 November 2018 – Morning (Non-Calculator) Foundation Tier

44.

6 Which is bigger, 36% or $\frac{7}{20}$?

Show your working and give a reason for your answer.

..... is bigger because

..... [4]

45.

13 (a) Write 0.003 16 in standard form.

(a) [1]

(b) Work out.

$$2 \times 10^2 \times 4 \times 10^5$$

Give your answer in standard form.

(b) [2]

OCR Monday 12 November 2018 – Morning (Calculator) Foundation Tier

46.

3 (a) Write $\frac{3}{8}$ as a decimal.

(a) [1]

(b) Write 42% as a fraction.
Give your answer in its simplest form.

(b) [2]

OCR Monday 24 May 2018 – Morning (Calculator) Foundation Tier

47.

3 (a) Write 48 as a percentage of 200.

(a) % [1]

(b) Work out $\frac{1}{4}$ of 80.

(b) [1]

(c) Decrease 650 by 40%.

OCR Thursday 7 June 2018 – Morning (Non Calculator) Foundation Tier

48.

2 (a) Write these fractions as decimals.

(i) $\frac{9}{10}$

(a)(i) [1]

(ii) $\frac{3}{4}$

(ii) [1]

(b) A plank of wood 2.4 m long is cut into 6 pieces of equal length.

How long is each piece?

(b) m [2]

OCR Tuesday 12 June 2018– Morning (Calculator) Foundation Tier

49.

2 (a) Write down.

(i) 3091 rounded to the nearest hundred

(a)(i) [1]

(ii) 3% as a decimal

(ii) [1]

(iii) the cube root of 27

(iii) [1]

(b) Complete the statement below using a number from this list.

-2 0 -6 6

-5 > [1]

(c) Write the following numbers in order of size, smallest first.

0.4 0.5 0.06 0.444 0.46

..... [2]
smallest

OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier

50.

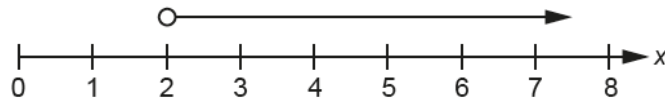
4 (a) Use one of these symbols $<$, $>$ or $=$ to make each statement true.

(i) $\frac{1}{4}$ 0.25 [1]

(ii) 0.66 $\frac{2}{3}$ [1]

(iii) 6 2^3 [1]

(b) Write down the inequality for x that is shown on this number line.



(b) [1]

51.

5 Write the following in order of size, smallest first.

28% $\frac{7}{26}$ 2.7

..... [2]
smallest

52.

10 (a) Write 62 as a percentage of 500.

(a) % [3]

(b) Increase £196 by 9%.

(b) £ [3]

OCR Monday 6 November 2017– Morning (Calculator) Foundation Tier

53.

5 Write 0.26 as a fraction.
Give your answer in its simplest form.

..... [2]

Pearson Edexcel – Sample Papers - Paper 1 (Non-Calculator) Foundation Tier

54.

18 (a) Work out $\frac{2}{7} + \frac{1}{5}$

.....
(2)

(b) Work out $1\frac{2}{3} \div \frac{3}{4}$

.....
(2)

(Total for Question 18 is 4 marks)

Pearson Edexcel – Sample Papers - Paper 2 (Calculator) Foundation Tier

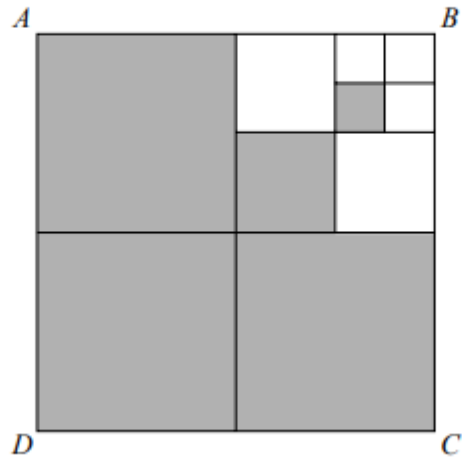
55.

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

.....
(Total for Question 2 is 1 mark)

56.

- 7 $ABCD$ is a square.
This diagram is drawn accurately.



What fraction of the square $ABCD$ is shaded?

(Total for Question 7 is 2 marks)

OCR Thursday 25 May 2017 – Morning (Calculator) Foundation Tier

57.

4 Karen made 40 cakes.

She gives $\frac{1}{5}$ of the cakes to Andrew.

She gives 10% of the 40 cakes to Chris.

What fraction of the 40 cakes does she have left?

..... [3]

OCR Thursday 25 May 2017 – Morning (Calculator) Foundation Tier

58.

6 Work out 17% of 54.

Give your answer correct to 1 decimal place.

..... [3]

59.

- 10** The pass mark for a test is 86%.
Steve scores 52 out of 61 marks.

Does he pass the test?
Explain your answer.

.....
..... [2]

60.

- 11** 320 people go on a coach trip.
Each coach holds 53 people.

Gary says 6 coaches are needed.

Is Gary correct?
You must show your working.

.....
..... [2]

61.

1 (a) Complete this table of fractions, decimals and percentages.

Fraction		Decimal		Percentage
$\frac{1}{2}$	=	0.5	=	50%
	=	0.27	=	
$\frac{4}{5}$	=		=	
	=		=	3%

[3]

(b) Write 45% as a fraction in its simplest form.

(b) [2]

(c) Alan and Brian share a sum of money in the ratio 1:4.

What fraction of the money does Alan receive?

(c) [1]

AQA Tuesday 19 May 2020 – Morning (Non-Calculator) Foundation Tier

62.

18 (a) Work out 110% of 80

[2 marks]

Answer _____

18 (b) Work out 21 as a fraction of 12

Circle your answer.

[1 mark]

$$\frac{7}{4}$$

$$\frac{4}{7}$$

$$\frac{3}{4}$$

$$\frac{4}{3}$$

63.

23 As a decimal $\frac{11}{40} = 0.275$

Work out $\frac{33}{400}$ as a decimal.

[2 marks]

Answer _____

AQA Thursday 4 June 2020 – Morning (Calculator) Foundation Tier

64.

9 Members of a club are Senior, Adult or Junior.

9 (a) Here is a report about the members of the club.

18% are Senior 54% are Adult 38% are Junior

Give a reason why there **must** be a mistake in the report.

[1 mark]

9 (b) An Adult membership fee is £120

A Junior membership fee is $\frac{1}{5}$ of the Adult fee.

Work out the **total** membership fee for 2 Adults and 3 Juniors.

[3 marks]

Answer £ _____

AQA Monday 8 June 2020 – Morning (Calculator) Foundation Tier

65.

2 50% of a number is 40

Circle the number.

[1 mark]

20

80

800

2000

AQA Tuesday 21 May 2019 – Morning (Non-Calculator) Foundation Tier

66.

12 Work out 65% of 300

[3 marks]

Answer _____

67.

13 In a game the average score was 50

Tom's score was $\frac{5}{2}$ of the average.

Circle Tom's score.

[1 mark]

125

175

30

20

AQA Thursday 6 June 2019 – Morning (Calculator) Foundation Tier

68.

2 Circle the fraction which is equal to 0.25

[1 mark]

$\frac{1}{40}$

$\frac{2}{5}$

$\frac{3}{12}$

$\frac{4}{100}$

AQA Thursday 6 June 2019 – Morning (Calculator) Foundation Tier

69.

10 Zoe is thinking of a number.

$$\frac{3}{10} \text{ of } 90 = \frac{1}{2} \text{ of her number}$$

What number is she thinking of?

[3 marks]

Answer _____

AQA Thursday 11 June 2019 – Morning (Calculator) Foundation Tier

70.

15 Circle the correct statement.

[1 mark]

$$\frac{1}{3} \leq 30\%$$

$$\frac{1}{3} = 30\%$$

$$\frac{1}{3} < 30\%$$

$$\frac{1}{3} \neq 30\%$$

AQA Tuesday 6 November 2018 – Morning (Non-Calculator) Foundation Tier

71.

12 Work out $\frac{2}{7} + \frac{6}{7}$

Circle your answer.

[1 mark]

$$1\frac{1}{7}$$

$$\frac{8}{14}$$

$$\frac{8}{49}$$

$$1\frac{5}{7}$$

AQA Tuesday 6 November 2018 – Morning (Non-Calculator) Foundation Tier

72.

17 (a) Laura wants to work out 3% of 1700

Her method is 1700×0.3

Is her method correct?

Tick a box.

Yes

No

Give a reason for your answer.

[1 mark]

17 (b) Laura also wants to work out $\frac{30}{29}$ of 60

Her answer is 58

Is her answer correct?

Tick a box.

Yes

No

Give a reason for your answer.

[1 mark]

AQA Tuesday 6 November 2018 – Morning (Non-Calculator) Foundation Tier

73.

25 Work out $8\frac{1}{2} \div 2\frac{2}{3}$

Give your answer as a mixed number.

[4 marks]

Answer _____

AQA Thursday 24 May 2018 – Morning (Non-Calculator) Foundation Tier

74.

1 Work out $\frac{1}{2} \times 5$

Circle your answer.

[1 mark]

$\frac{5}{10}$

$2\frac{1}{2}$

$\frac{1}{10}$

$2\frac{1}{5}$

75.

5 Work out 20% of 14 000

[2 marks]

Answer _____

76.

6 (a) Write 0.85 as a fraction in its simplest form.

[2 marks]

Answer _____

6 (b) Write $\frac{5}{8}$ as a decimal.

[1 mark]

Answer _____

77.

19 Circle the percentage that is closest in value to $\frac{1}{3}$

[1 mark]

30%

33%

33.3%

33.4%

AQA Thursday 7 June 2018 – Morning (Calculator) Foundation Tier

78.

- 2 Circle the decimal that is greater than $\frac{3}{10}$ and less than $\frac{2}{5}$

[1 mark]

0.32

0.035

0.4

0.24

AQA Tuesday 12 June 2018 – Morning (Calculator) Foundation Tier

79.

- 5 (a) Shade $\frac{2}{5}$ of this grid.

[1 mark]

- 5 (b) Shade 10% of this grid.

[1 mark]

AQA Thursday 2 November 2017 – Morning (Non-Calculator) Foundation Tier

80.

10 Complete the table to show equivalent fractions and percentages.

[3 marks]

Fraction	Percentage
$\frac{1}{2}$	50%
$\frac{3}{10}$	
	43%
$\frac{5}{2}$	

AQA Thursday 25 May 2017– Morning (Non-Calculator) Foundation Tier

81.

10 Work out $\frac{3}{8} \times 11$

Give your answer as a mixed number.

[2 marks]

Answer _____

AQA Thursday 8 June 2017– Morning (Calculator) Foundation Tier

82.

17 Circle the fraction equal to 0.1%

[1 mark]

$$\frac{1}{10}$$

$$\frac{1}{100}$$

$$\frac{1}{1000}$$

$$\frac{1}{10\,000}$$

AQA Sample Paper 1– Morning (Non-Calculator) Foundation Tier

83.

25 Work out $2\frac{3}{4} \times 1\frac{5}{7}$

Give your answer as a mixed number in its simplest form.

[3 marks]

Answer _____

AQA Sample Paper 2– Morning (Calculator) Foundation Tier

84.

6 A gym has 275 members.

40% are bronze members.

28% are silver members.

The rest are gold members.

Work out the number of gold members.

[3 marks]

Answer _____

AQA Sample Paper 3– Morning (Calculator) Foundation Tier

85.

5 120 men and 80 women were asked if they drive to work.

Altogether $\frac{1}{4}$ of the people said yes.

$\frac{1}{3}$ of the men said yes.

What fraction of the women said yes?

[4 marks]

Answer _____