

Fractions Decimals and Percentages Exam Questions

Question 1

Calculate $\frac{5}{7} - \frac{1}{3}$

Give your answer in its simplest form.



Question 2

Find $1\frac{2}{5} + \frac{7}{4}$

Give your answer as a decimal.



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Question 3

Find 3.8×11.4



Question 4

Put these fractions in order of size, smallest to largest:

$$\frac{4}{3} \qquad \frac{3}{4} \qquad \frac{3}{8} \qquad \frac{5}{8} \qquad \frac{7}{6}$$

Show your calculations and/or workings out here:



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Question 5



Give 144 as a fraction of 240 in its simplest form.

Show your calculations and/or workings out here:

Question 6



Give 133 as a fraction of 380 in its simplest form.

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Question 7

In 2010, the population of a town was 120000.

The population of the town increased by 5% each year.

In 2012, $\frac{1}{3}$ of the total population were children.

Calculate the total population of the children in 2012.



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Question 8

The table below shows the milk purchasing habits of several people in a shop.



Quantity (Pints)	Frequency
0	19
1	13
2	49
4	12
6	7

Write the number of people who purchased 4 pints of milk as a fraction of the total number of customers.

Give your answer in its simplest form.

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Question 9

Laura used to earn £200 per week. She was given a pay rise equal to $\frac{2}{5}$ of her weekly income at the start of the year.



Laura earns £3000 in bonuses over the next year, which is added to her annual income.

The first £12500 of her annual income is tax-free.

20% tax is deducted on any annual earnings over £12500.

Given that there are 52 weeks in a year, calculate Laura's income this year after tax.

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Question 10

Tom is given £8 500 to go towards a deposit to buy his first house.

Tom sees these two savings accounts.

Money saver account

Bonus saver account

1.75% per year.

Save for 3 years and receive a single bonus of 5.25%

To be added at the end of each year.

Tom puts his money in the Money saver account.

How much more money will Tom have after 3 years compared to the Bonus Saver account?



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Question 11

The formula below is used to calculate the percentage fuel saving when driving at a reduced speed compared to a higher speed.



$$F = 100 \times \left(\frac{a-b}{b} \right)^2$$

F = % fuel savings

a = original average speed

b = reduced average speed

Calculate F when the speed is reduced from 60 mph to 50 mph.

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Question 12



Sarah helps to organise a family fun day charity event each year.

Last year, 120 people attended the event each paying a £2.50 entry fee.

	Money taken during the event (£)	Percentage of money taken (%)
Entry fees		
Cake stall		19%
Bouncy castle		32%
Tombola		9%
Wheel of fortune		15%

It cost £175 to hire the Village Hall for the event and a further £85 for prizes.

How much profit did Sarah make for charity?