Multiple choice questions - Fractions, decimals and percentages

Year: Year 10 · 10

Question 1 Which is the largest?

- ◯ **A.** $\frac{3}{8}$
- ◯ **B.** 0.38
- ◯ **C.** 37%
- ◯ **D.** $\frac{2}{5}$

Question 2 $\frac{1}{2} + \frac{1}{3} =$

- ◯ **A.** $\frac{2}{5}$
- ◯ **B.** $\frac{5}{6}$
- ◯ **C.** $\frac{2}{6}$
- ◯ **D.** $\frac{1}{6}$

Question 3 $\frac{2}{3} \div \frac{4}{9} =$

- ◯ **A.** $\frac{8}{27}$
- ◯ **B.** $\frac{3}{2}$
- ◯ **C.** $\frac{2}{3}$
- ◯ **D.** $\frac{4}{3}$

Question 4 0.45 as a fraction in simplest form is

- ◯ **A.** $\frac{45}{10}$
- ◯ **B.** $\frac{9}{20}$
- ◯ **C.** $\frac{4}{5}$
- ◯ **D.** $\frac{9}{10}$

Question 5 The multiplier for a 7% decrease is

- ◯ **A.** 0.07
- ◯ **B.** 1.07
- ◯ **C.** 0.93
- ◯ **D.** 0.7

Question 6 A price rises from £50 to £65. The percentage increase is

- ◯ **A.** 15%

- ◯ **B.** 30%
- ◯ **C.** 23%
- ◯ **D.** 13%

Question 7 After a 25% increase a price is £90. The original price was

- ◯ **A.** £67.50
- ◯ **B.** £72
- ◯ **C.** £112.50
- ◯ **D.** £65

Question 8 $3\frac{1}{4} \times 2 =$

- ◯ **A.** $6\frac{1}{4}$
- ◯ **B.** $6\frac{1}{2}$
- ◯ **C.** $5\frac{1}{4}$
- ◯ **D.** $7\frac{1}{2}$

Question 9 (Higher) $0.\dot{4}$ as a fraction is

- ◯ **A.** $\frac{4}{10}$
- ◯ **B.** $\frac{4}{9}$
- ◯ **C.** $\frac{4}{99}$
- ◯ **D.** $\frac{2}{5}$

Question 10 A +20% change followed by a -20% change gives overall

- ◯ **A.** no change
- ◯ **B.** a 4% decrease
- ◯ **C.** a 4% increase
- ◯ **D.** a 2% decrease

Answer grid - Fractions, decimals and percentages

Year: Year 10

Question	Answer	Explanation
1	**D**	$\frac{2}{5} = 0.4$, the largest of 0.375, 0.38, 0.37, 0.4.
2	**B**	$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$.
3	**B**	$\frac{2}{3} \times \frac{9}{4} = \frac{18}{12} = \frac{3}{2}$.
4	**B**	$\frac{45}{100} = \frac{9}{20}$.
5	**C**	$1 - 0.07 = 0.93$.
6	**B**	$\frac{15}{50} \times 100 = 30\%$.
7	**B**	$90 \div 1.25 = 72$.
8	**B**	$\frac{13}{4} \times 2 = \frac{13}{2} = 6\frac{1}{2}$.
9	**B**	$10x - x = 4$, so $x = \frac{4}{9}$.
10	**B**	$1.2 \times 0.8 = 0.96$.