Decimals and percentages topic test

12 questions | 25 marks | 30 minutes

Place value through thousandths, ordering and number lines, then familiar fraction-decimal-percentage connections.

Equivalent correct methods earn the corresponding marks.

1. In 4.026, what place is the digit 2 in? [1 mark]

Two is the second digit after the decimal point.

Answer: Hundredths

2. Write four hundred and seven thousandths as a decimal. [1 mark]

$\frac{407}{1000} = 0.407$.

Answer: 0.407

3. Write $2 + \frac{5}{10} + \frac{9}{1000}$ as one decimal. [2 marks]

Place five in tenths, zero in hundredths and nine in thousandths.

Answer: 2.509

4. Are 0.60 and 0.6 equal? Give a place-value reason. [2 marks]

The trailing zero renames the same amount.

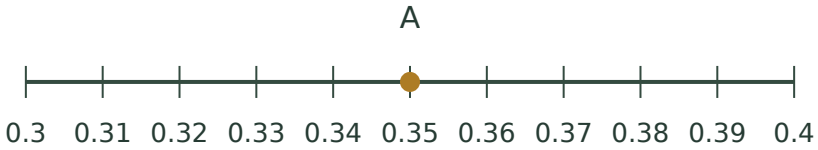
Answer: Yes. Sixty hundredths is six tenths.

5. Order 0.507, 0.57 and 0.057 from smallest to largest. [2 marks]

Compare 57, 507 and 570 thousandths.

Answer: $0.057 < 0.507 < 0.57$

6. Point A is marked on the number line. Write its decimal value. [2 marks]



There are ten equal intervals across one tenth. Five hundredths after 0.30 is 0.35.

Answer: 0.35

7. Write $\frac{1}{4}$ as a decimal and percentage. [2 marks]

$\frac{1}{4} = \frac{25}{100}$.

Answer: 0.25 and 25%

8. Write $\frac{3}{4}$ as a decimal and percentage. [2 marks]

$\frac{3}{4} = \frac{75}{100}$.

Answer: 0.75 and 75%

9. Write 20% as a fraction in simplest form and as a decimal. [2 marks]

$\frac{20}{100} = \frac{1}{5} = 0.2$.

Answer: $\frac{1}{5}$ and 0.2

10. Which is greater, 0.125 or 0.12? How many thousandths greater is it? [3 marks]

Write 0.12 as 0.120.

125 thousandths minus 120 thousandths is five thousandths.

Answer: 0.125, by five thousandths.

11. Ari walks 0.8 km, Bo walks 0.75 km and Cia walks 0.805 km. List their names from shortest distance to longest distance. [3 marks]

Write the distances as 0.750, 0.800 and 0.805 km.

Compare hundredths and then thousandths.

Answer: Bo, Ari, Cia.

12. A design has 100 equal tiles. Twenty-five percent are red and fifty percent are blue. The rest are green. How many tiles are green? Show your reasoning. [3 marks]

Twenty-five percent of one hundred is twenty-five red tiles; fifty percent is fifty blue tiles.

Seventy-five tiles are red or blue, leaving twenty-five green tiles.

Answer: 25 tiles.