Converting between fractions and decimals

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Write $\frac{3}{10}$ as a decimal. [1 mark]

Three tenths is 0.3.

Answer: 0.3

2. Write $\frac{11}{20}$ as a decimal. [2 marks]

$\frac{11}{20} = \frac{55}{100}$.

Answer: 0.55

3. Write $\frac{7}{8}$ as a decimal. [2 marks]

$\frac{7}{8} = \frac{875}{1000}$.

Answer: 0.875

4. Write 0.45 as a simplified fraction. [2 marks]

$\frac{45}{100} = \frac{9}{20}$.

Answer: $\frac{9}{20}$

5. Write 1.2 as an improper fraction and a mixed number. [2 marks]

$1.2 = \frac{12}{10} = \frac{6}{5}$.

Answer: $\frac{6}{5} = 1\frac{1}{5}$

6. A calculator displays 0.666667 for $\frac{2}{3}$. Is that an exact result? Explain. [3 marks]

Dividing 2 by 3 produces repeating sixes. The displayed result stops after a finite number of digits.

Answer: No; it is a rounded approximation.