Lesson 12: Significant Figures

Year 10 Mathematics Unit 1 — Block B | Worksheet

Name _____ Date _____ Class _____

Multiple Choice

Q1. How many significant figures does 0.00450 have?

A) 2 B) 3 C) 4 D) 5

Q2. Round 4.0756 to 3 significant figures.

A) 4.07 B) 4.08 C) 4.076 D) 4.075

Q3. A rectangle measures 5.2 cm by 3.8 cm. What is its area, given to the correct number of significant figures?

A) 19.76 cm^2 B) 19.8 cm^2 C) 20 cm^2 D) 19 cm^2

Q4. Which measurement has the most significant figures?

A) 0.0040 B) 4.00 C) 400 D) 4.0

Q5. A scientist records a mass as 25.0 g. A student records the same mass as 25 g. Which statement is true?

A) Both measurements have the same precision B) 25.0 g is more precise C) 25 g is more precise

D) The trailing zero in 25.0 is not significant

Short Answer

Q6. How many significant figures are in each of the following: (a) 0.00560, (b) 1200, (c) 3.14159? *(2 marks)*

Q7. Calculate 4.25 x 2.1, giving your answer to the correct number of significant figures. Explain your reasoning. *(3 marks)*

Q8. Explain why it is important for scientists and engineers to report measurements with the correct number of significant figures. Use an example involving a bridge design. *(3 marks)*

Key Formulas

- Write any formulas you need here.