

SMART EXAM RESOURCES
IGCSE PHYSICS ANSWERS[SAMPLE SOLUTIONS]
MAIN TOPIC: MOTION FORCES AND ENERGY

Explanation of Place Values in Decimals Using the Answer 0.761 m

In the given answer 0.761 m, each digit holds a specific place value based on its position relative to the decimal point. Let's break it down:

1. 0.761 m is read as 'zero point seven six one meters.'

Digit	Place Value	Explanation
0	Units place (ones)	Represents zero whole meters.
7	Tenths place (0.1)	Represents 7 tenths of a meter, or 70 cm.
6	Hundredths place (0.01)	Represents 6 hundredths of a meter, or 6 cm.
1	Thousandths place (0.001)	Represents 1 thousandth of a meter, or 1 mm.

Importance of Place Values in the Context of the Question

- The nearest millimetre (mm) requires precision to the thousandths place (0.001 m).
- In the number 0.761 m, the digit 1 in the thousandths place confirms that the measurement is precise to the nearest millimetre.
- Other options such as 0.76 m do not include the thousandths place, making them less precise.

Conclusion

The correct answer 0.761 m is appropriate because it includes the thousandths place, representing millimetres accurately.