

SMART EXAM RESOURCES
9702 PHYSICS TOPIC QUESTIONS
TOPIC: PHYSICAL QUANTITIES AND UNITS
SUB-TOPIC: ERRORS AND UNCERTAINTIES
SUB-SUB-TOPIC: DEFINITIONS OF PRECISION AND ACCURACY

- 1** Each student in the class performs an experiment.
The teacher describes the values of the Young modulus calculated by the students as having high accuracy and low precision.
Explain what is meant by low precision.

.....
..... [1]

Mark Scheme:

values have a large range	B1
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- 2** A student takes several measurements of the same quantity. This set of measurements has high precision, but low accuracy.

Describe what is meant by:

- (i) *high precision*

.....
..... [1]

- (ii) *low accuracy.*

.....
..... [1]

Mark Scheme:

(i)	the measurements have a small range	B1
(ii)	the (average of the) measurements is not close to the true value	B1

3

State what is meant by *precision*.

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MARKING SCHEME:

1. precision is determined by the range in the measurements/values/readings/data/results	B1
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