

## The motion of falling bodies

1 In paragraph 1 the writer uses the word “supposed”. In this context supposed is closest in meaning to:

A – thought to be

B – said to be

C – was

D – is

2 Why does the writer say that medieval Europeans could not calculate ratios?

A – They had no calculators.

B – They had not been to school.

C – They used Roman numerals.

D – They had lost contact with Rome.

3 When the writer refers to Oresme by name he uses a spelling that is:

A – English

B – phonetic

C – shortened

D – easily remembered

4 Figure 1 is ...

A – a diagram drawn by the writer.

B – an incorrect diagram.

C – a exact copy of a diagram in Orem’s book.

D – a modern graph.

**5** In the caption to figure 2 the word ‘superimposed’ is closest in meaning to:

- A – added.            B – overlaid.            C – fitted in.            D – imposed.

**6** Why does the writer say that Orem made no measurements?

- A – He had no measuring instruments.  
B – He was forbidden to make measurements by the Church?  
C – He was a philosopher, not a scientist.  
D – No one in those times made measurements.

**7** When Galileo made measurements of uniformly accelerated motion he ...

- A – Had a friend make him a clock.  
B – Had no clock and guessed the times as best he could.  
C – Made is own clock.  
D – Did not measure times.

**8** Galileo described the motion of his rolling ball with an Orem-style diagram for a uniformly deformed velocity with time on the horizontal line.

- A – He knew that before he started.  
B – He never understood why that worked.  
C – He chose the example he used so that that would be true.  
D – He thought he had been “lucky” to find something so simple.

**9** Orem called the area under one of his diagrams:

- A – an integral.            B – a measure.            C – a proportion.            D – a ratio.

**10** What would Orem have understood about figures 4 and 5?

- A – the graphs show the velocity of a ball in free fall.  
B – the red areas below the line are negative.  
C – the graphs show uniformly deformed velocity.  
D – the integral is the height from which the ball was dropped.