UNIT 34 Pythagoras' Theorem and Trigonometric Ratios
CSEC Multiple Choice Questions

For each of these questions, choose the option that is TRUE. (All questions from past CXC papers.)

1. This question refers to the triangle $PQR$ in which angle $QPR = 90^\circ$, $PR = 12$ cm and $PQ = 5$ cm.

![Triangle PQR diagram]

The length of $QR$, in cm, is
(A) 7
(B) 11
(C) 13
(D) 17

2. The diagram above shows a circle with centre $O$. A line $ON$ is drawn perpendicular to $AB$. $OA = 10$ cm and $AB = 16$ cm.

The length, in cm, of $ON$ is
(A) 5
(B) 6
(C) 8
(D) 10
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3. The triangle $ABC$ above shows the angle of elevation of the top, $B$, of a tower, $BC$, from $A$, to be $30^\circ$. $AB = 40$ m. The length of $BC$ is

(A) $40 \tan 30^\circ$

(B) $40 \sin 60^\circ$

(C) $40 \tan 60^\circ$

(D) $40 \sin 30^\circ$

4. In the diagram above, which of the following is true?

(A) $\sin e = \frac{12}{17}$

(B) $\cos e = \frac{12}{17}$

(C) $\sin e = \frac{17}{12}$

(D) $\tan e = \frac{17}{12}$
5. Question 5 refers to the diagram below.

A plane travels from point $A$ on a bearing $150^\circ$ to a point $B$ 10 km from $A$. How far east of $A$ is $B$?

(A) $10 \cos 60^\circ$

(B) $10 \cos 30^\circ$

(C) $10 \sin 60^\circ$

(D) $10 \tan 30^\circ$
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ANSWERS

1. C
2. B
3. D
4. B
5. A