## 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 $C X C$ papers.)

1. This question refers to the triangle $P Q R$ in which angle $Q P R=90^{\circ}$, $P R=12 \mathrm{~cm}$ and $P Q=5 \mathrm{~cm}$.


The length of $Q R$, in cm , is
(A) 7
(B) 11
(C) 13
(D) 17
2.


The diagram above shows a circle with centre $O$. A line $O N$ is drawn perpendicular to $A B . O A=10 \mathrm{~cm}$ and $A B=16 \mathrm{~cm}$.
The length, in cm , of $O N$ is
(A) 5
(B) 6
(C) 8
(D) 10

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3.


The triangle $A B C$ above shows the angle of elevation of the top, $B$, of a tower, $B C$, from $A$, to be $30^{\circ} . A B=40 \mathrm{~m}$. The length of $B C$ 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) $\tan e=\frac{17}{12}$

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5. Question 5 refers to the diagram below.


A plane travels from point $A$ on a bearing $150^{\circ}$ to a point $B 10 \mathrm{~km}$ 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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CSEC Multiple Choice Questions ANSWERS

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