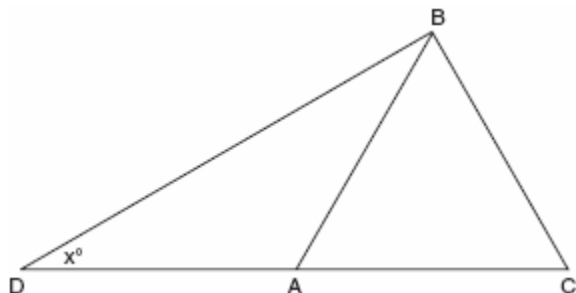


NAME: _____

1. 080221a, P.I. G.G.31

In the accompanying diagram of $\triangle BCD$, $\triangle ABC$ is an equilateral triangle and $AD = AB$. What is the value of x , in degrees?



2. 089920a, P.I. G.G.31

What is the perimeter of an equilateral triangle whose height is $2\sqrt{3}$?

[A] 6 [B] $6\sqrt{3}$ [C] 12 [D] $12\sqrt{3}$

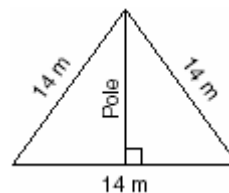
3. 080613b, P.I. G.G.31

If the perimeter of an equilateral triangle is 18, the length of the altitude of this triangle is

[A] 6 [B] $3\sqrt{3}$ [C] 3 [D] $6\sqrt{3}$

4. 080504b, P.I. G.G.31

The accompanying diagram shows two cables of equal length supporting a pole. Both cables are 14 meters long, and they are anchored to points in the ground that are 14 meters apart.



What is the exact height of the pole, in meters?

[A] $7\sqrt{3}$ [B] 14 [C] $7\sqrt{2}$ [D] 7

NAME: _____

5. 080914b, P.I. G.G.31

What is the length of the altitude of an equilateral triangle whose side has a length of 8?

[A] 4 [B] 32 [C] $4\sqrt{3}$ [D] $4\sqrt{2}$

[2] 30, and appropriate work is shown or an appropriate explanation is given.

[1] Angles of the equilateral triangle are shown to be 60° , but x is not determined or is determined incorrectly.

or [1] 30, but no work is shown or no explanation is given.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[1] incorrect procedure.

[2] C

[3] B

[4] A

[5] C