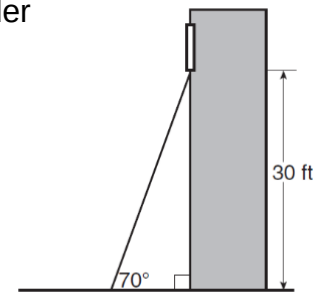
Name _____ **DUE DATE:** **Quiz on 5/10 and 5/11**

GEOMRCC Regents Review 7

Directions ***The Regents reviews will no longer be handed in. There will be a 2 question quiz on these questions on the last day of class in each week. You will have exactly 10 minutes to complete the quiz.***

1) The diameter of a basketball is approximately 9 inches and the diameter of a tennis ball is approximately 3 inches. The volume of the basketball is about ***how many times greater*** than the volume of the tennis ball?

2) A carpenter leans an extension ladder against a house to reach the bottom of a window 30 feet above the ground. As shown in the diagram below, the ladder makes a 70º angle with the ground. To the nearest foot, ***determine and state the length*** of the ladder

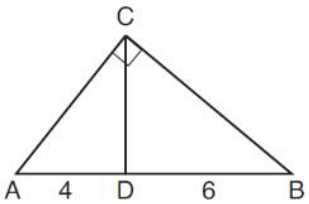


3) Line ℓ is mapped onto line m by a dilation centered at the origin with a scale factor of 3. The equation of line ℓ is $4y - 5x = 12$. ***Determine and state an equation*** for line m.

4) An equilateral triangle has sides of length 20. To the ***nearest tenth***, what is the height of the equilateral triangle?

5) What length in ***simplest radical form*** of BC will make CD perpendicular to AB?

In the diagram of right triangle ABC, $\overline{CD}$ intersects hypotenuse $\overline{AB}$ at D.



Answers: 1) 27 times 2) 32 ft 3) $y = \frac{5}{4}x + 9$ 4) 17.3 5) $2\sqrt{15}$