

BE-PRECALC THURSDAY 10-15-09

① $\sin^2 \theta + \underline{\quad ? \quad} = \underline{\quad ? \quad}$ Complete the trig. identity.

② Name EACH trig function:

(A) $\frac{O}{A}$ (B) $\frac{O}{H}$ (C) $\frac{H}{O}$

(D) $\frac{A}{H}$ (E) $\frac{H}{A}$ (F) $\frac{A}{O}$

③ WHAT IS THE $\cos 45^\circ$?

④ State THE side lengths of a $45-45-90$ and $30-60-90 \Delta$ used to remember their trig. functions.

ACT ① According to the measurements in the figure below, which expression gives the distance, in miles, from the boat to the dock?

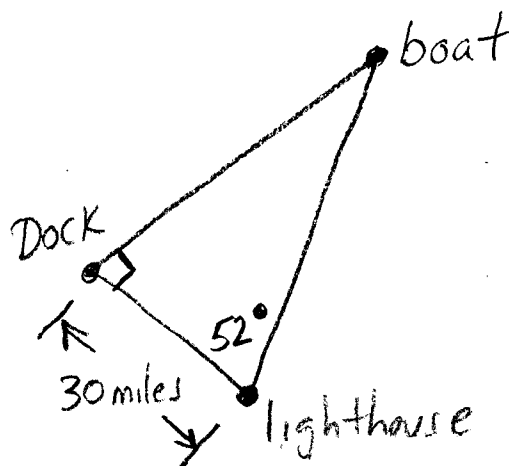
(A) $30 \tan 52^\circ$

(B) $30 \cos 52^\circ$

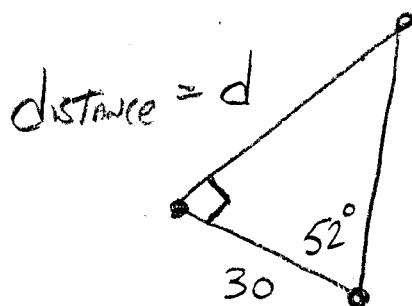
(C) $30 \sin 52^\circ$

(D) $\frac{30}{\cos 52^\circ}$

(E) $\frac{30}{\sin 52^\circ}$



BE $\Rightarrow$
ANS $\Rightarrow$



$$\tan 52 = \frac{d}{30}$$

$$\therefore 30 \tan 52 = d$$

• Homework review Pg 302-303 10-15, 22

⑩ 4.5

⑪ 6.3

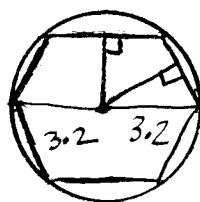
⑫ 21.2

⑬ 9.5

⑭ 76.9

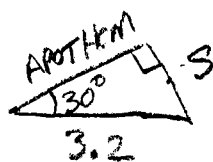
⑮ 18.4

②



$$d = 6.4 \text{ cm}$$

$$\frac{360}{12} = 30^\circ$$



APOTHEM $\Rightarrow$ Segment From Center Of A Regular Polygon Perpendicular to a side of the polygon

$$\cos 30 = \frac{a}{3.2} \quad \therefore a = 3.2 \cos 30$$

$$\boxed{a \approx 2.77 \text{ cm}}$$

$$\sin 30 = \frac{S}{3.2} \quad \therefore S = 3.2 \sin 30$$

$$S = 1.6 \Rightarrow \text{Hex Side}$$

$$= 2(1.6) = \boxed{3.2 \text{ cm}}$$

$$\boxed{P = 6(3.2) = 19.2 \text{ cm}}$$

$$A = \frac{1}{2}(19.2)(2.77)$$

$$\boxed{A \approx 26.592 \text{ cm}^2}$$

✓ I G W Q 2 H W 1