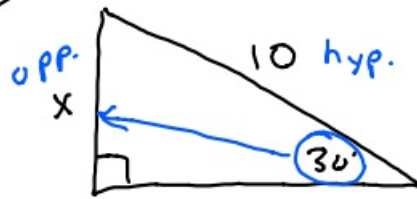


2-13-20 2nd Geo

①



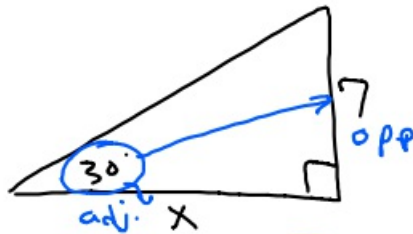
SOH
CAH
TOA

$$\frac{\sin 30^\circ}{1} = \frac{x}{10}$$

$$x = 10 \cdot \sin 30^\circ$$

$$x = 5$$

②



SOH
CAH
TOA

(A) $2\sqrt{7} \approx 5.3$

(B) $7\sqrt{3} \approx 12.1$

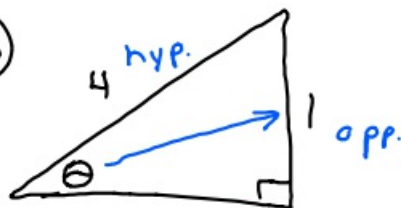
(C) $3\sqrt{7}$

~~$\tan 30^\circ = \frac{7}{x}$~~

$$\frac{x \cdot \tan 30^\circ}{\tan 30^\circ} = \frac{7}{\tan 30^\circ}$$

$$x \approx 12.1$$

③



SOH
CAH
TOA

~~$\sin^{-1} \sin \theta = \frac{1}{4}$~~

$$\theta \approx 14.5^\circ$$

④

SOH
CAH
TOA

$$\sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{4}{11}$$

$$\theta \approx 21.3^\circ$$

⑤

$$\frac{\sin 45^\circ}{1} = \frac{x}{8}$$

$$x = 8 \cdot \sin 45^\circ$$

$$x \approx 5.7$$

⑥

SOH
CAH
TOA

$$\frac{\cos 35^\circ}{1} = \frac{11}{x}$$

$$\frac{x \cdot \cos 35^\circ}{\cos 35^\circ} = \frac{11}{\cos 35^\circ}$$

$$x \approx 13.4$$

⑦

$$\frac{\tan 30^\circ}{1} = \frac{x}{3}$$

$$\frac{\tan 60^\circ \cdot \sqrt{3}}{1} = \frac{\sqrt{3}}{x}$$

$$x = \sqrt{3} \cdot \tan 30^\circ$$

$$x^2 + 18^2 = 22^2$$

$$x^2 + 324 = 484$$

$$\begin{array}{r} x^2 + 324 = 484 \\ -324 \quad -324 \\ \hline \sqrt{x^2} = \sqrt{160} \\ x \approx 12.6 \end{array}$$