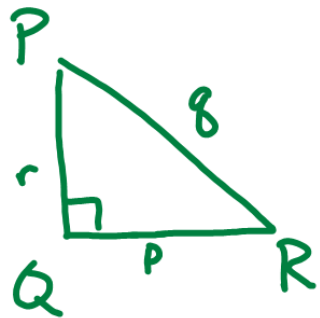
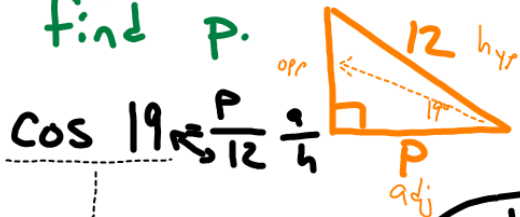


In order to leave Italy, the Jersey Shore Cast must answer some Geometry questions (Yeah, right...). They need your help!



① $q = 12$ & $\angle R = 19^\circ$,
find p .

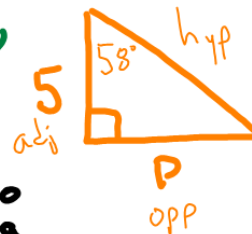


$$\cos 19 = \frac{p}{12} \Rightarrow \frac{p}{12} = \frac{1}{2}$$

$$p = 12 \cos 19$$

$$p = 11.3$$

② $\angle P = 58^\circ$ & $r = 5$,
find p



$$\tan 58 = \frac{p}{5} \Rightarrow \frac{p}{5} = \dots$$

$$p = 5 \tan 58 \quad p = 8$$

③ $\angle P = 60^\circ$ & $p = 9$,
find q .

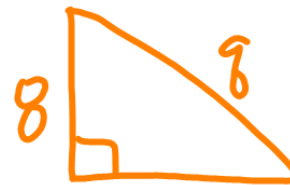


$$\sin 60 = \frac{9}{8} \Rightarrow \frac{9}{8} = \dots$$

$$8 \sin 60 = 9$$

$$8 = \frac{9}{\sin 60} \quad q = 10.3$$

④ $r = 8$ & $p = 12$,
find q

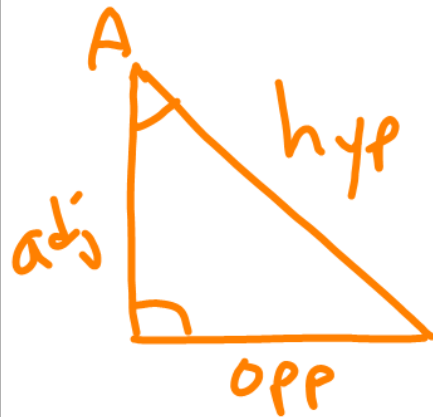


$$q^2 = 8^2 + 12^2 = 64 + 144 = 208$$

$$q = \sqrt{208} = 14.4$$

7.7 Solve Right Δ 's

* Find \angle measure with sin, cos, tan



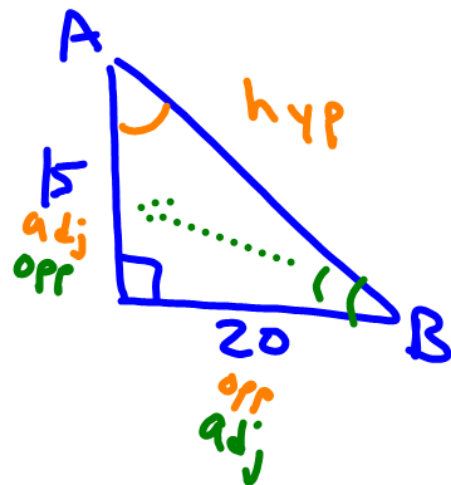
To find a side:

$$\sin \angle A = \frac{\text{opp}}{\text{hyp}} \rightarrow \sin^{-1}\left(\frac{\text{opp}}{\text{hyp}}\right) = \angle A$$

$$\cos \angle A = \frac{\text{adj}}{\text{hyp}} \rightarrow \cos^{-1}\left(\frac{\text{adj}}{\text{hyp}}\right) = \angle A$$

$$\tan \angle A = \frac{\text{opp}}{\text{adj}} \rightarrow \tan^{-1}\left(\frac{\text{opp}}{\text{adj}}\right) = \angle A$$

To find an angle:



find $\angle A$

$$\tan^{-1}\left(\frac{20}{15}\right) =$$

$$53.1^\circ$$

find $\angle B$

$$\tan^{-1}\left(\frac{15}{20}\right) =$$

$$36.9^\circ$$