BECA / IB Math 6 Geometry Name:
22 March 2022

6.4 Do Now Quiz: Right triangle trigonometry

Do Now (PreQuiz)

1. Calculate each value. Round to the nearest thousandth.

   (a) $\sin 11°$

   (b) $\cos 62°$

   (c) $\tan 23°$

   (d) $\sin 81°$

2. Find θ. Round to the nearest whole degree.

   (a) $\theta = \sin^{-1}(\frac{3}{5})$

   (b) $\theta = \tan^{-1}(0.88)$

   (c) $\theta = \cos^{-1}(0.500)$

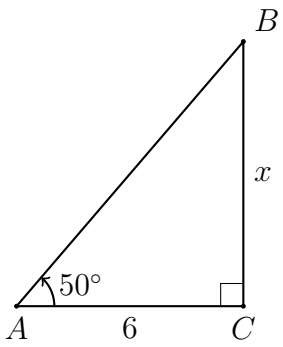
   (d) $\tan\theta = \dfrac{11.3}{6.9}$

3. Solve each equation for x, rounding to the nearest tenth.

   (a) $\cos 71° = \dfrac{x}{15}$

   (b) $\tan 49° = \dfrac{12.7}{x}$

4. Given right $\triangle ABC$ with $AC = 6$, $m\angle A = 50°$. Find the value of $BC = x$.



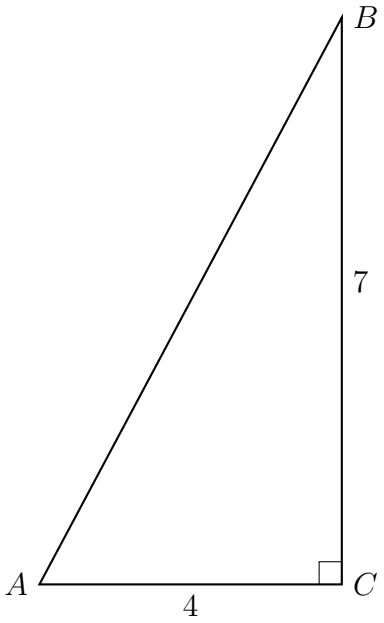
5. $\triangle ABC$ is shown with $m\angle C = 90°$ and the lengths of the triangle's sides are $AC = 4$, $BC = 7$. (not drawn to scale)

   (a) Write down the value of $\tan A$.

   (b) Find the measure of $\angle A$.

   (c) Write down the value of $\tan B$.

   (d) Find the measure of $\angle B$.

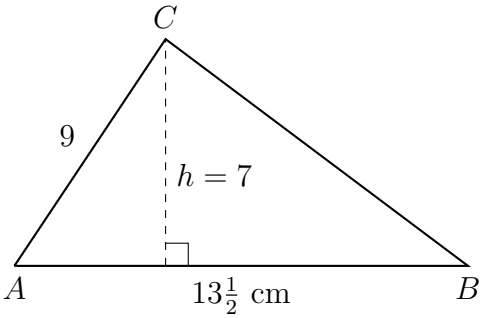


6. Given $\triangle ABC$ with $AC = 9$ centimeters, altitude $h = 7$ cm, and the base $AB = 13\frac{1}{2}$ cm. (diagram not to scale)

   (a) Write down $\sin A$.

   (b) Find the measure of angle $\hat{A}$.

   (c) Find the area of $\triangle ABC$.



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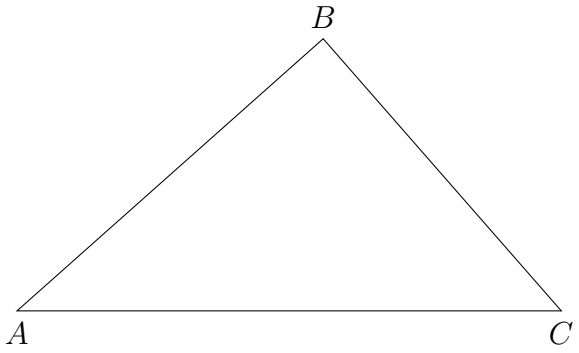
7. Triangle ABC has $\hat{A} = 40°$, $AB = 7$ cm, $BC = 6$ cm. Find the measure of $\hat{C}$.

   (a) Write down the law of sines, substituting appropriate values.

   (b) Solve for the measure of angle C



8. The right $\triangle ABC$ has a base of $AC = 6$ units. The area of the triangle is 15 square units. Find the lengths of all three sides and measures of all angles of the triangle. ("solve the triangle")