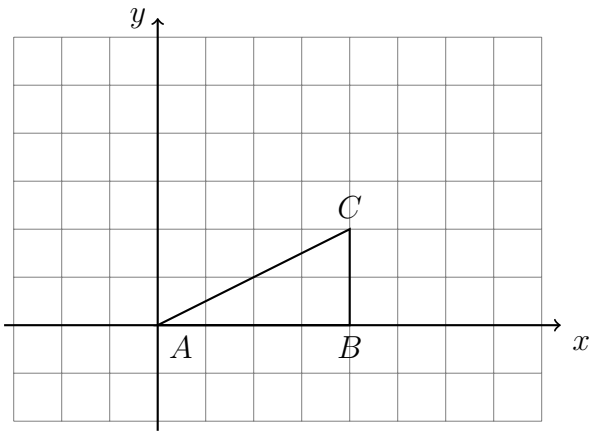
8-3 Problem Set: Similar triangles, dilation ratios

1. On the graph below, dilate the triangle ABC by a factor of $\frac{3}{2}$ centered on the origin.



2. Express each value to *the nearest tenth*.

   (a) $\tan 76° =$

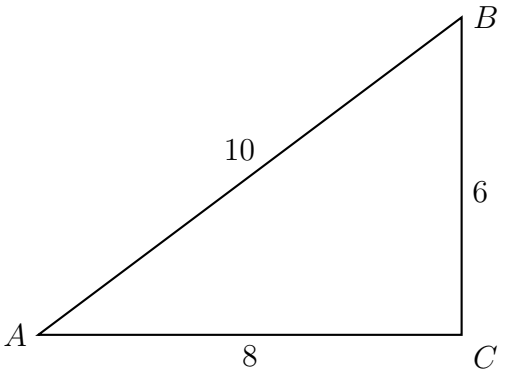
   (b) $\cos 36° =$

   (c) $\tan 14° =$

   (d) $\sin 44° =$

3. $\triangle ABC$ has sides of length $BC = 6$, $AC = 8$, and $AB = 10$ as shown.

   Use the Pythagorean theorem to show that $\triangle ABC$ is a right triangle with $m\angle C = 90°$.



(a) Find $\tan A =$

(b) Find $\cos A =$