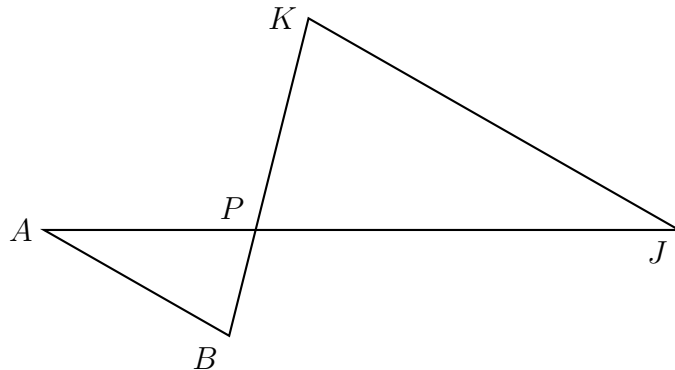**11.17**

1. Given $\triangle ABP \sim \triangle JKP$ as shown below. $AB = 9.6$, $AP = 12.0$, $BP = 6.3$, and $JP = 27.0$. Find JK.

2. Write an equation of the line that is parallel to the line whose equation is $3y + 7 = 2x$ and passes through the point $(2, 6)$.

3. The base of a pyramid is a rectangle with a width of 4.6 cm and a length of 9 cm. What is the height, in centimeters, of the pyramid if its volume is 82.8 cm³?

4. What is the equation of a circle with center $(-3, 7)$ and radius $r = 4$?

5. In the diagram below of right triangle ABC, $AC = 8$, and $AB = 17$.
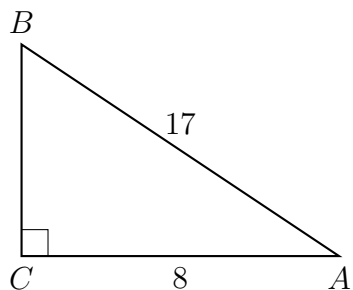
Which equation would determine the value of angle A?
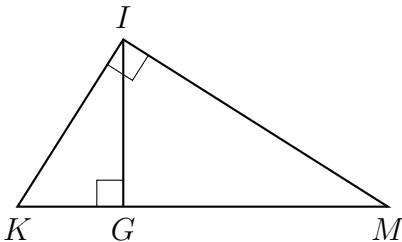
(a) $\sin A = \dfrac{8}{17}$ (c) $\cos A = \dfrac{15}{17}$

(b) $\tan A = \dfrac{8}{15}$ (d) $\tan A = \dfrac{15}{8}$

6. In a right triangle, the acute angles have the relationship
   $\sin(2x + 4) = \cos(46)$.

   What is the value of x?

7. In the diagram below of right triangle KMI, altitude $\overline{IG}$ is drawn to hypotenuse $\overline{KM}$.

   IF $KG = 9$ and $IG = 12$, what is the length of $\overline{IM}$?

8. Circle O has chords $\overline{AD}$ and $\overline{BE}$ intersecting at C, as shown. Find AC.