

1. Find a segment that is congruent to $\overline{JK}$

$$\overline{JK} \cong \overline{AB}$$

$$\overline{AB} \quad A(1, 13) \quad B(-5, 5) \quad \sqrt{6^2 + 8^2} = \sqrt{100}$$

$$\overline{CD} \quad C(11, 3) \quad D(3, 1)$$

$$\overline{EF} \quad E(2, -10) \quad F(14, 6) \rightarrow \sqrt{12^2 + 16^2}$$

$$\overline{GH} \quad G(5, -2) \quad H(2, 10) \quad \times$$

$$\overline{JK} \quad J(-3, 4) \quad K(7, 4) \quad \sqrt{10^2 + 0^2} = \sqrt{100}$$

2. Find a segment that is parallel to $\overline{AB} \parallel \overline{EF}$

3. Find a segment that is perpendicular to $\overline{CD} \perp \overline{GH}$

$$\overline{AB} \quad A(1, 13) \quad B(-5, 5) \quad m = \frac{13 - 5}{1 - (-5)} = \frac{8}{6} = \frac{4}{3}$$

$$\overline{CD} \quad C(11, 3) \quad D(3, 1) \quad m = \frac{3 - 1}{11 - 3} = \frac{2}{8} = \frac{1}{4}$$

$$\overline{EF} \quad E(2, -10) \quad F(14, 6) \quad m = \frac{6 - (-10)}{14 - 2} = \frac{16}{12} = \frac{4}{3}$$

$$\overline{GH} \quad G(5, -2) \quad H(2, 10) \quad m = \frac{10 - (-2)}{2 - 5} = \frac{12}{-3} = -4$$

$$\overline{JK} \quad J(-3, 4) \quad K(7, 4)$$