

Use these Segments:

$\overline{AB}$

$A(-5, 3)$

$B(1, 11)$

$\overline{CD}$

$C(5, 6)$

$D(8, 10)$

$\overline{EF}$

$E(-7, -1)$

$F(5, 8)$

$\overline{MP}$

$M(2, 3)$

$P(8, -5)$

1. Which segments are parallel?

$\overline{AB} \parallel \overline{CD}$  Slope

2. Which segments are Perpendicular?

$\overline{EF} \perp \overline{MP}$  Slope

3. Which segments are congruent?

$\overline{AB} \cong \overline{MP}$  distance formula

	m	d
AB	$\frac{11-3}{1-(-5)} = \frac{8}{6} = \frac{4}{3}$	$\sqrt{6^2 + 8^2} = \sqrt{36 + 64} = \sqrt{100} = 10$
CD	$\frac{10-6}{8-5} = \frac{4}{3}$	$\sqrt{3^2 + 4^2} = 5$
EF	$\frac{8-(-1)}{5-(-7)} = \frac{9}{12} = \frac{3}{4}$	$\sqrt{12^2 + 9^2} = 15$
MP	$\frac{3-(-5)}{2-8} = \frac{8}{-6} = -\frac{4}{3}$	$\sqrt{8^2 + (-6)^2} = 10$