

9/12/18

Topic: Parallel + Perpendicular Lines

Parallel (||) ^{Symbol}

never intersect

* Same slope

Perpendicular (⊥) ^{Symbol}

intersect to form 90°

* Negative reciprocal slopes
(opposite sign and flip)

Examples

Find the slope of each:

1) Parallel

$$m = -\frac{2}{3}$$

$$|| m = -\frac{2}{3}$$

same slope

$$m = \frac{4}{5}$$

$$|| m = \frac{4}{5}$$

$$m = 0$$

$$|| m = 0$$

$$m = \frac{-6 - \infty}{0} = \text{slope}$$

$$|| m = \frac{-6}{0} \text{ undefined}$$

no slope

2) Perpendicular

$$|| m = -\frac{3}{2}$$

Flip fraction
& change sign

$$|| m = -\frac{5}{4}$$

$|| m =$ undefined or
no slope

$|| m = 0$ or zero