

1. Are these two number Opposite Reciprocals? 1.6 & -0.625

Tell if each pair of lines is parallel, perpendicular, or neither

2. $y = 2x - 9$
 $y = 2$

3. $y = -5x + 3$
 $y = -\frac{1}{5}x + 1$

4. $y = -3x - 9$
 $12x + 4y = 10$

5. $y = 0.125x + 3$
 $16x + 2y = 6$

6. $y = -4x + 5$
 $16x + 4y = 20$

1. Are these two number Opposite Reciprocals?

1.6 & -0.625

Yes, because their product = -1

$(1.6)(-0.625) = -1$

Tell if each pair of lines is parallel, perpendicular, or neither

2. $y = 2x - 9$ $m = 2$
 $y = 2$ $m = 0$

Neither

3. $y = -5x + 3$ $m = -5$
 $y = -\frac{1}{5}x + 1$ $m = -\frac{1}{5}$

Neither
slopes are
reciprocals
but not opposite.

4. $y = -3x - 9$ $m = -3$ $b = -9$
 $12x + 4y = 10$ →

parallel
same slope
diff y-int

change to slope-int form

$y = \frac{10 - 12x}{4}$

$y = \frac{5}{2} - 3x$
 $m = -3$
 $b = \frac{5}{2}$

5. $y = 0.125x + 3$ $m = .125$
 $16x + 2y = 6$

→ change to
slope-int form

$y = \frac{6 - 16x}{2}$

$y = 3 - 8x$ $m = -8$

$(.125)(-8) = -1$

perpendicular
slopes are
opp. reciprocals

6. $y = -4x + 5$
 $16x + 4y = 20$

change to
slope-int form

→ $y = \frac{20 - 16x}{4} = 5 - 4x$

Neither, these are
the same line