

Geometry – Practice What You Know

Key

1. Lines a and b are parallel. Using the figure below:
 - a. Solve for x .
 - b. Solve for y .
 - c. Find the measures of angles 1-5.

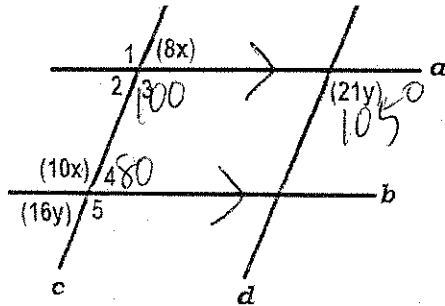
$$18x = 180$$

$$x = 10$$

$$16y = 80$$

$$y = 5$$

Based on this information, are lines c and d parallel? In complete sentences, explain why or why not.



$$100^\circ \neq 105^\circ$$

Since corresponding angles are not equal,

lines c + d are not parallel.

$$m\angle 1 = 100^\circ$$

$$m\angle 3 = 100^\circ$$

$$m\angle 2 = 80^\circ$$

$$m\angle 4 = 80^\circ$$

$$m\angle 5 = 100^\circ$$

Match Equations to the x y data chart

Equations

$y = 1/2x + 2$
$y = -3x + 1$
$y = 4x + 7$
$y = -3/2x - 1$
$y = -4x - 2$
$y = 2x - 5$
$y = -x + 1$
$y = x + 2$
$y = 3x - 3$
$y = -x - 1$

Table

11
6
3
1
2
4
8
7
9 12
10

Perpendicular

-2
1/3
-1/4
2/3
1/4
-1/2
1
-1
-1/3
1

Parallel

1/2
-3
4
-3/2
-4
2
-1
1
3
-1

Table 1

X	Y
-9	12.5
-3	3.5
-1	0.5
2	-4

$$m = \frac{3.5 - 0.5}{-3 - (-1)} = \frac{3}{-2}$$

Table 2

X	Y
-9	34
-3	10
-1	2
2	-10

$$m = \frac{34 - 10}{-9 - (-3)} = \frac{24}{-6} = -4$$

Table 3

X	Y
-9	-29
-3	-5
-1	3
2	15

$$m = \frac{-29 + 5}{-9 + 3} = \frac{-24}{-6} = 4$$

Table 4

X	Y
-4	-13
1	-3
8	11
12	19

$$m = \frac{-13 + 3}{-4 - 1} = \frac{-10}{-5} = 2$$

Table 5

X	Y
-10	7
-4	4
12	-4
14	-5

$$m = \frac{7-4}{-10+4} = \frac{3}{-6} = -\frac{1}{2}$$

Table 6

X	Y
6	-17
10	-29
-7	22
-3	10

$$m = \frac{-17+29}{6-10} = \frac{12}{-4} = -3$$

Table 7

X	Y
-4	-2
-1	1
2	4
7	9

$$m = \frac{-2-1}{-4-1} = \frac{-3}{-5} = \frac{3}{5}$$

Table 8

X	Y
6	-5
12	-11
16	-15
-4	5

$$m = \frac{-5+11}{6-12} = \frac{6}{-6} = -1$$

Table 9

X	Y
8	25
2	7
-4	-11
-2	-5

$$m = \frac{25-7}{8-2} = \frac{18}{6} = 3$$

Table 10

X	Y
-7	6
-1	0
9	-10
14	-15

$$m = \frac{6-0}{-7-1} = \frac{6}{-8} = -\frac{3}{4}$$

Table 11

X	Y
-4	0
-6	-1
6	5
12	8

$$m = \frac{0-(-1)}{-4-(-6)} = \frac{1}{2}$$

Table 12

X	Y
2	3
4	9
8	21
-7	-24

$$m = \frac{9-3}{4-2} = \frac{6}{2} = 3$$