

Answer 47

47. Which of the lines below is not parallel to the line  $6x - 2y = 10$ ?

- A)  $3x - y = 7$
- B)  $-6x + 2y = 20$
- C)  $3x + y = 7$
- D)  $6x - 2y = 5$
- E)  $x - y/3 = 9$

This question requires that we find the slope of each line. One of those slopes will not be equal to the slope of  $6x - 2y = 10$ .

First, find the slope of  $6x - 2y = 10$  by putting it in Slope-Intercept form:

$$6x - 2y = 10 \quad -2y = -6x + 10 \quad y = \frac{-6}{-2}x + \frac{10}{-2} \quad y = 3x - 5$$

So, the slope we're looking for is 3.

Before starting down the road of converting each equation into Slope-Intercept form, let's take a quick look at the answer options. Converting each of these equations into Slope-Intercept form would be very time consuming.

Answer C is almost in Slope-Intercept form, and will be as soon as  $3x$  is subtracted from both sides. When that happens, note that the slope will be  $-3$ , not  $+3$ , so we don't need to look any further.

The correct answer is C.