

How Do They Fit?

Determine the slope and y-intercept.

Puzzle:

Cut apart the puzzle pieces. On notebook paper, rewrite each equation in slope-intercept form. Match the equation puzzle piece with the piece that has the correct slope and y-intercept. You must solve *a minimum of ten* equations.

Outside Edges:

Once the puzzle is complete, there will be three edges that have equations written in Standard Form and nine edges that have a slope and y-intercept. Write all 12 of these as equations in slope-intercept form. On graph paper, graph at least 10. Be sure to label each graph with the slope-intercept form equation written on the line. Do **NOT** graph all 10 equations on the same coordinate plane.

$5x + 4y = 10$ $m = \frac{5}{4}, y\text{-int: } (0, -\frac{5}{4})$ $4x - 3y = 9$ $m = \frac{4}{3}, y\text{-int: } (0, -\frac{9}{4})$ $m = 3, y\text{-int: } (0, 5)$	$5x + 4y = 10$ $m = \frac{5}{4}, y\text{-int: } (0, -\frac{5}{4})$ $4x - 3y = 9$ $m = \frac{4}{3}, y\text{-int: } (0, -\frac{9}{4})$ $m = 3, y\text{-int: } (0, -8)$	$5x + 4y = 10$ $m = \frac{5}{4}, y\text{-int: } (0, -\frac{5}{4})$ $4x - 3y = 9$ $m = \frac{4}{3}, y\text{-int: } (0, -\frac{9}{4})$ $m = 3, y\text{-int: } (0, -8)$
$2x + 3y = 6$ $m = 1, y\text{-int: } (0, 0)$ $2x - 3y = -18$ $m = \frac{2}{3}, y\text{-int: } (0, 6)$ $5x - 3y = 7$ $m = \frac{5}{3}, y\text{-int: } (0, \frac{7}{3})$ $7x - 7y = 8$ $m = -\frac{7}{7}, y\text{-int: } (0, 0)$ $5x - 4y = 9$ $m = \frac{5}{4}, y\text{-int: } (0, \frac{9}{4})$ $9 = 6x + x$ $m = -\frac{2}{3}, y\text{-int: } (0, 2)$	$2x + 3y = 6$ $m = 1, y\text{-int: } (0, 0)$ $2x - 3y = -18$ $m = \frac{2}{3}, y\text{-int: } (0, 6)$ $5x - 3y = 7$ $m = \frac{5}{3}, y\text{-int: } (0, \frac{7}{3})$ $7x - 7y = 8$ $m = -\frac{7}{7}, y\text{-int: } (0, 0)$ $5x - 4y = 9$ $m = \frac{5}{4}, y\text{-int: } (0, \frac{9}{4})$ $9 = 6x + x$ $m = -\frac{2}{3}, y\text{-int: } (0, 2)$	$2x + 3y = 6$ $m = 1, y\text{-int: } (0, 0)$ $2x - 3y = -18$ $m = \frac{2}{3}, y\text{-int: } (0, 6)$ $5x - 3y = 7$ $m = \frac{5}{3}, y\text{-int: } (0, \frac{7}{3})$ $7x - 7y = 8$ $m = -\frac{7}{7}, y\text{-int: } (0, 0)$ $5x - 4y = 9$ $m = \frac{5}{4}, y\text{-int: } (0, \frac{9}{4})$ $9 = 6x + x$ $m = -\frac{2}{3}, y\text{-int: } (0, 2)$
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