Name _____ Parallel & Perpendicular Practice 1

Show all work in the space provided.

Identify which lines are parallel. Explain why.

A $y = \frac{4}{3}x + 3$

B $2y = x - 4$

C $3y = 4x - 5$

D $y = \frac{4}{3}x - 3$

Write the slope of an equation that is perpendicular to $y = -5x - 3$.

Compare the graphs of the equations in Column A and Column B.

Column A	Column B
$2y = 3x + 8$	$3x - 2y = 12$

A The graphs are parallel.
B The graphs are perpendicular.
C The graphs are neither.
D The relationship cannot be determined from the information given.

Compare the graphs of the equations in Column A and Column B.

Column A	Column B
$y = 3x - 4$	$3x + 9y = 27$

A The graphs are parallel.
B The graphs are perpendicular.
C The graphs are neither.
D The relationship cannot be determined from the information given.

Write the slope of an equation that is parallel to $y = 7x + 4$.

Identify which lines are perpendicular. Explain why.

A $y = -2$

B $y = 4x - 7$

C $y = -4x$

D $y = \frac{1}{4}x + 2$

Write the slope of an equation that is perpendicular to $y = \frac{3}{2}x + 9$.

Identify which lines are parallel. Explain why.

A $y = \frac{4}{3}x + 3$

B $y = -4$

C $y = -\frac{3}{4}x$

D $y = 3$

Compare the graphs of the equations in Column A and Column B.

Column A	Column B
$-4y = 12x + 4$	$x - 3y = 15$

A The graphs are parallel.
B The graphs are perpendicular.
C The graphs are neither.
D The relationship cannot be determined from the information given.

Name _____ **Date**_____ **Parallel and Perpendicular Practice 2**

Show all work in the space provided.

Identify which lines are parallel. Explain why.

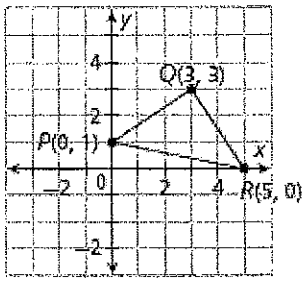
$y = \frac{4}{3}x + 3$

$y = 2$

$y = \frac{4}{3}x - 5$

$y = -3$

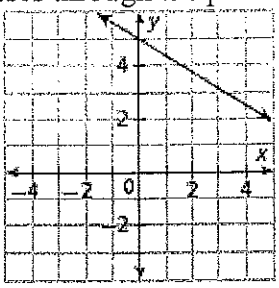
Show that PQR is a right triangle



Write the equation in slope-intercept form that passes through the point (4, 5) and is perpendicular to y = -4x – 3.

Write the equation in slope-intercept form that passes through (3, 2) and is parallel to y = 3x – 1

Write an equation that is parallel to the given graph and passes through the point (-2, 3).



Identify which lines are perpendicular. Explain why.

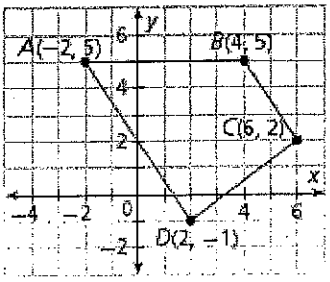
$x = -2$

$y = 1$

$y = -4x$

$y + 2 = \frac{1}{4}(x + 1)$

Show that ABCD is a trapezoid.



Write the equation in slope-intercept form that passes through the point (8, 5) and is perpendicular to x + y = 2

Write an equation in point – slope form that passes though the point (4, 5) and is parallel to 2x + 3y = 7