

4.1 PRE-TEST

Course name: Algebra I Algebra 1 Essential Skills
Professor name: Homeschool Studies
College name: Homeschool Studies

All exercises, quizzes, and tests are delivered online. This is a sample print of an online Test.

Directions: Ready to test your smarts?

Have a shot at this 20-question practice test!

Take it as many times as you want to. Once you're done, be sure to click the "Guide" button to review any questions you missed, a step-by-step explanation for the question, and a link to the video where that content is discussed.

Need Help? No problem. Contact support@thinkwell.com with questions.

Question: 1 QID: 91986

Determine a relationship between the x and y values. Write an equation.

x	1	2	3	4
y	-2	-1	0	1

- $y = x - 5$
 $y = x - 3$
 $y = -x - 3$
 $y = -3x + 1$

Question: 2 QID: 91986

Identify the independent and dependent variables. Then, write a rule in function notation for the situation, letting x represent the independent variable.

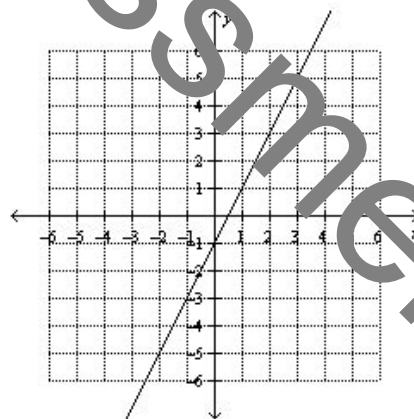
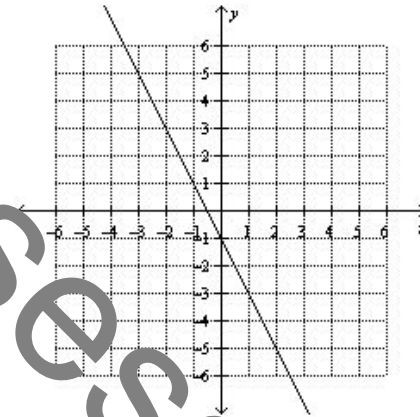
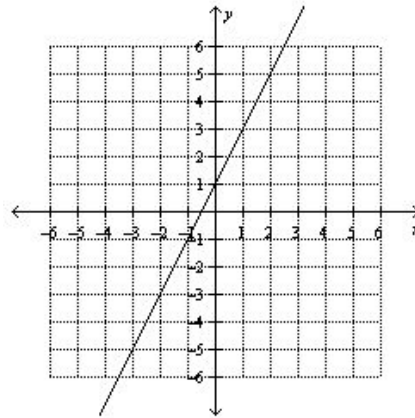
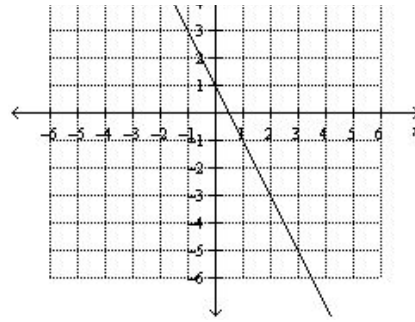
A hair stylist's fee is \$20 for each haircut.

- independent: total income
dependent: number of haircuts
rule: $f(x) = 20x$
 independent: total income
dependent: number of haircuts
rule: $f(20) = x$
 independent: number of haircut
dependent: total income
rule: $f(x) = 20x$
 independent: number of haircut
dependent: total income
rule: $f(x) = 20 + x$

Question: 3 QID: 91997

Graph the function $y = 2x - 1$.





Sample Assessment

Question: 4 QID: 90881

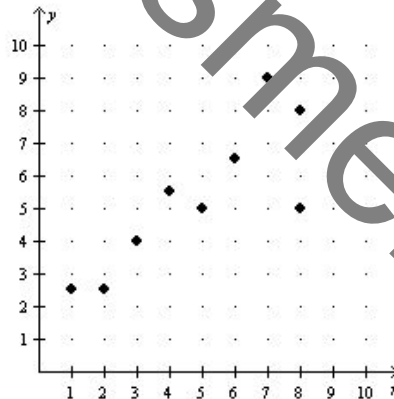
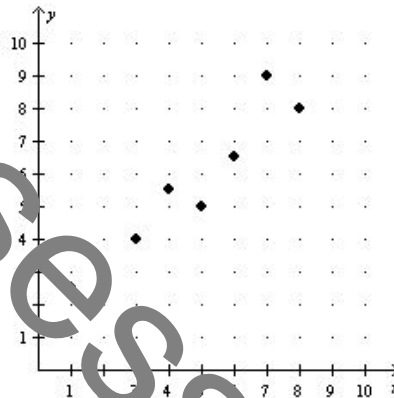
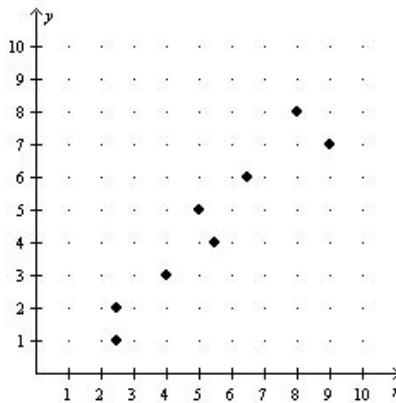
Use the given x -values to identify solutions as ordered pairs to the equation $y = -7x + 4$ for $x = 1, 3, 5,$ and 7 .

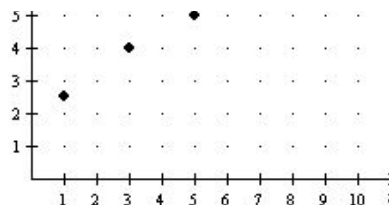
- (1,11), (3,25), (5,39), (7,53)
- (1,3), (3,17), (5,31), (7,45)
- (1, -11), (3, -25), (5, -39), (6, -53)
- (1, -3), (3, -17), (5, -31), (7, -45)

Question 5 QID: 92016

Graph a scatter plot using the given data.

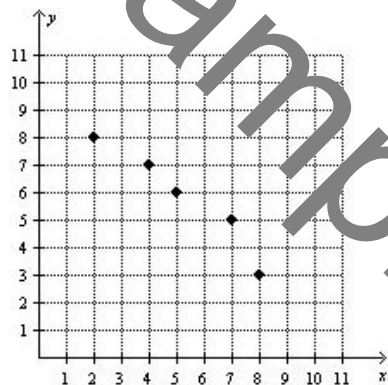
x	3	6	5	7	4	8	1	
y	4	6.5	5	2.5	9	5.5	8	2.5





Question: 6 QID: 92020

Describe the correlation illustrated by the scatter plot.

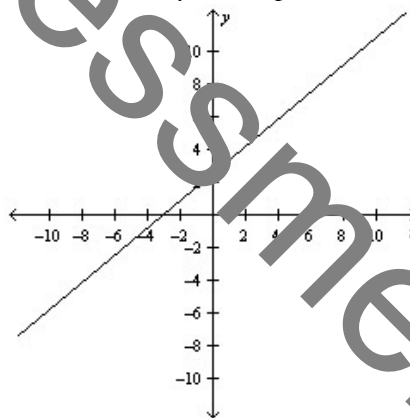


- cannot determine
- negative correlation
- positive correlation
- no correlation

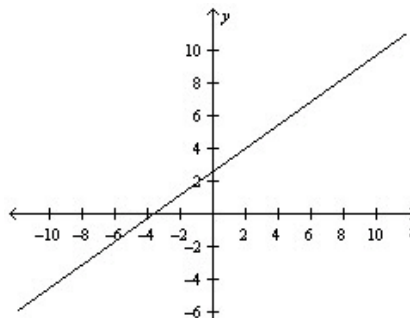
Question: 7 QID: 92072

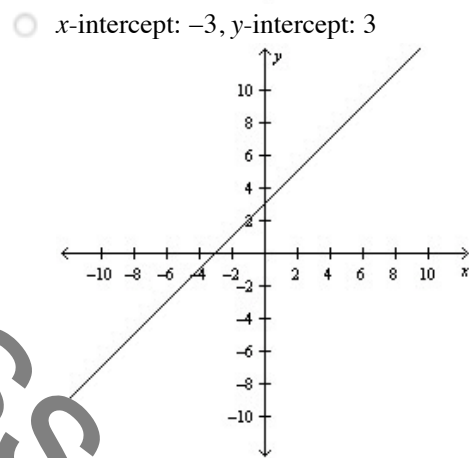
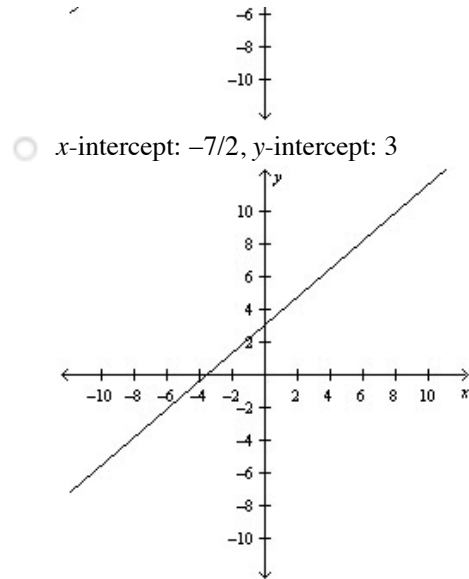
Use intercepts to graph the line described by the equation $4x - 4y = -12$.

- x-intercept: -3 , y-intercept: $5/2$



- x-intercept: $-7/2$, y-intercept: $5/2$





Question: 8 QID: 92093

Find the slope of the line that contains $(3, -6)$ and $(-1, -9)$.

- $-2/15$
- $3/4$
- $-15/2$
- $4/3$

Question: 9 QID: 92103

Find the slope of the line described by $-3x + 2y = -24$.

- $3/2$
- $2/3$
- $-3/2$
- $-2/3$

Question: 10 QID: 92132

Identify the equation that describes the line in slope-intercept form.

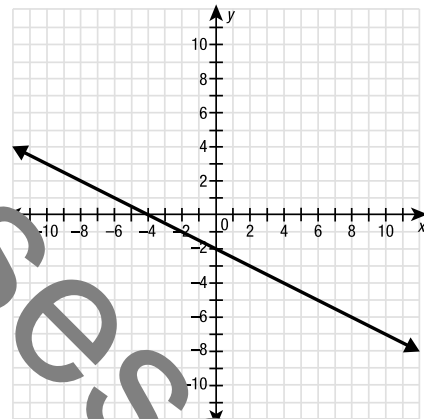
slope = -2 , point $(-4, 3)$ is on the line

- $y = -2x + 11$
 $y = -2x - 5$
 $y = -2x + 3$
 $y = -2x + 5$
-

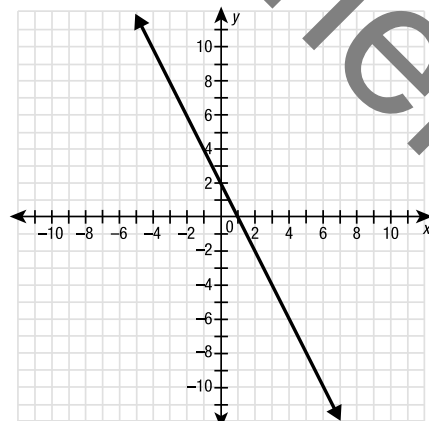
Question: 11 QID: 92138

Write the equation $5x + 10y = 20$ in slope-intercept form. Then graph the line described by the equation.

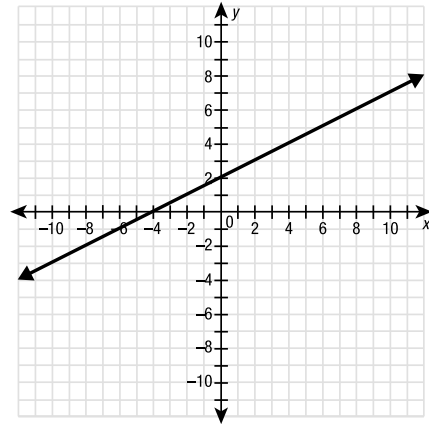
$$y = -\frac{1}{2}x + 2$$



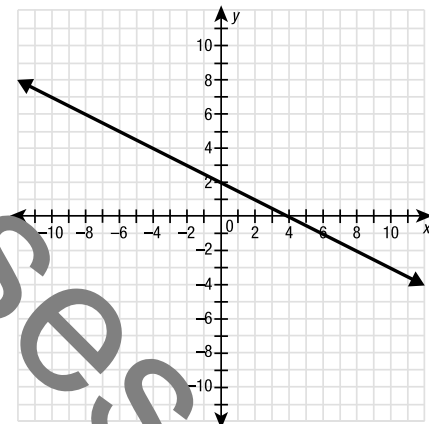
$$y = -\frac{1}{2}x + 2$$



$$y = -\frac{1}{2}x + 2$$



$$y = -\frac{1}{2}x + 2$$



Question: 12 QID: 92149

Write an equation in point-slope form for the line that has a slope of $\frac{9}{4}$ and contains the point $(3, -4)$.

$y - 4 = \frac{9}{4}(x + 3)$

$x - 3 = \frac{9}{4}(y + 4)$

$y + 4 = \frac{9}{4}(x - 3)$

$y + 3 = \frac{9}{4}(x - 4)$

Question: 13 QID: 92152

Write an equation in slope-intercept form of the line with slope -1 that contains the point $(5, -2)$.

- $y = -x + 5$
 $y = -x + 3$
 $y = -x - 2$
 $y = -x + 5$

Question: 14 QID: 92150

The equations of four lines are given. Identify which lines are parallel.

Line 1: $y = -5x - 5$

Line 2: $x + \frac{1}{2}y = -4$

Line 3: $y = -2x + 4$

Line 4: $y + 8 = -\frac{1}{5}(x - 9)$

- All four lines are parallel.
 Lines 1 and 2 are parallel.
 Lines 1 and 4 are parallel.
 Lines 2 and 3 are parallel.

Question: 15 QID: 93947

Identify the equation in slope-intercept form for the line containing the point $(2, 4)$ and perpendicular to $y = \frac{1}{2}x + \frac{1}{2}$.

- $y = -\frac{1}{2}x + 8$
 $y = -2x + 4$
 $y = \frac{1}{2}x + 8$
 $y = -2x + 8$

Question: 16 QID: 92183

Describe the transformation from the graph of $f(x) = x + 8$ to the graph of $g(x) = x - 3$.

- The graph $g(x) = x - 3$ is the result of translating the graph of $f(x) = x + 8$ down 5 units.

- The graph $g(x) = x - 3$ is the result of translating the graph of $f(x) = x + 8$ up 11 units.
- The graph $g(x) = x - 3$ is the result of translating the graph of $f(x) = x + 8$ up 5 units.
- The graph $g(x) = x - 3$ is the result of translating the graph of $f(x) = x + 8$ down 11 units.

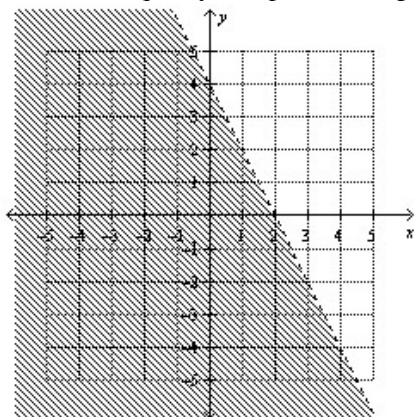
Question: 17 QID: 94667

Let $g(x)$ be the reflection across the x -axis of the function $f(x) = 7x + 3$. Identify the rule for $g(x)$.

- $g(x) = 7x + 3$
- $g(x) = 7x - 3$
- $g(x) = -7x + 3$
- $g(x) = -7x - 3$

Question: 18 QID: 92288

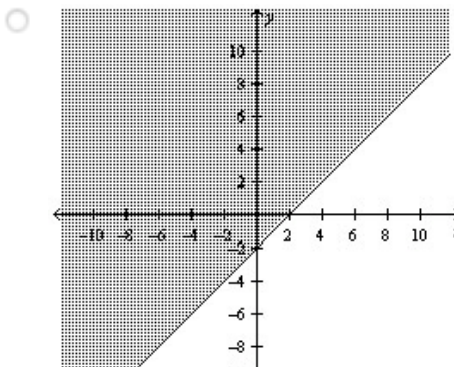
Write an inequality to represent the graph.

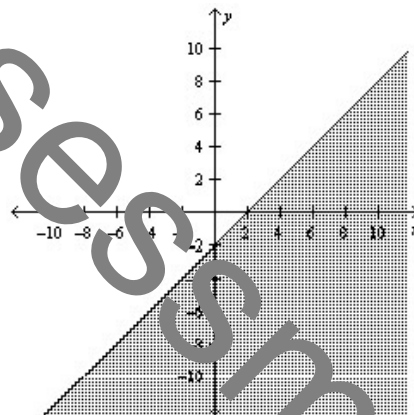
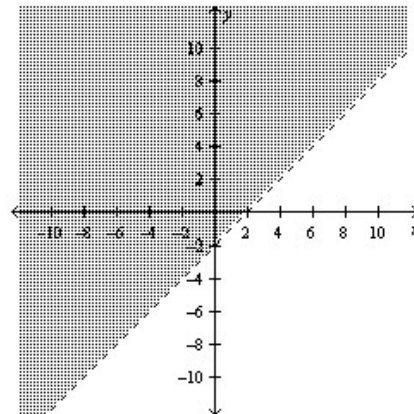
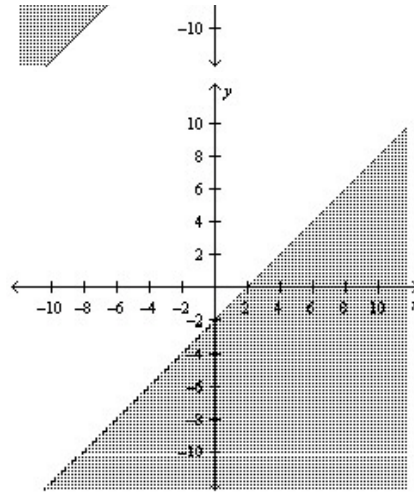


- $y < -2x + 4$
- $y < 4x - 2$
- $y > -2x + 4$
- $y \leq -2x + 4$

Question: 19 QID: 92278

Graph the solutions of the linear inequality $-2x + 2y \geq -4$.



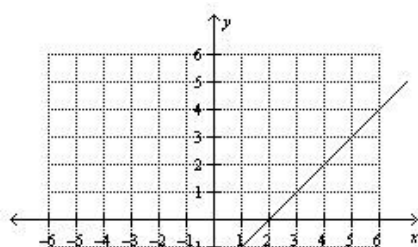


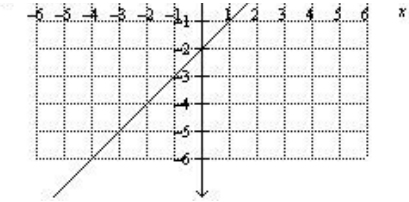
Sample Assessment

Question: 20 QID: 87666

Use the graph of the linear function to find the value of y for $x = -2$.

- $y = -1.5$
- $y = -6$
- $y = 2$
- $y = -4$





Sample Assessment