

TEST #2 A**Course name:** MAT 120 College Algebra**Professor name:** Dave Rado**College name:** Post University**Course code:** MAT 120**Section code:**

Directions: Test is due by the end of the day on Saturday. Submit your answers into Blackboard in the same area as the test. If you have any questions call Dave Rado at 203-715-5478 (during the day) or 203-758-9848 (after 6 PM and weekends).

Question: 1 QID: 9549

What is the slope of the line perpendicular to the line $y = 2x - 5$?

- (A) -2
- (B) $-\frac{1}{2}$
- (C) $\frac{1}{2}$
- (D) 5
- (E) None of the above

Question: 2 QID: 26289

Find the slope of the line which contains the following points: $(2, 3)$ and $(-2, 5)$

- (A) $4/7$
- (B) $-3/5$
- (C) $1/5$
- (D) $-1/2$

Question: 3 QID: 9499

Find the slope and y -intercept of the line described by $3x - 5y = -10$.

- (A) $m = 3$ and $b = -10$
- (B) $m = \frac{3}{5}$ and $b = 2$
- (C) $m = -5$ and $b = -10$
- (D) $m = 2$ and $b = \frac{3}{5}$
- (E) None of the above

Question: 4 QID: 9517

A given line has slope $\frac{3}{4}$ and passes through the point $(-2, 5)$. Find the equation of the line.

- (A) $y + 5 = \frac{3}{4}(x + 2)$
(B) $y = \frac{3}{4}(x + 2) + 5$
(C) $y = \frac{3}{4}(x - 2) + 5$
(D) $y = \frac{3}{4}(x - 2) - 5$
(E) None of the above

Question: 5 QID: 48355

Identify the vertex for the graph of $y = 0.2(x - 2)^2 + 3$

- (A) $(-2, 3)$
(B) $(2, 3)$
(C) $(2, -3)$
(D) $(-2, -3)$
(E) None of the above

Question: 6 QID: 48408

Find the maximum or minimum value of the function defined by $f(x) = -x^2 + 2x + 8$.

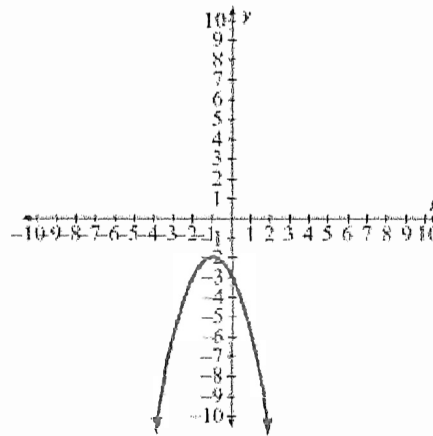
- (A) maximum of 9
(B) maximum of -9
(C) minimum of 1
(D) maximum of 18
(E) None of the above

Question: 7 QID: 48452

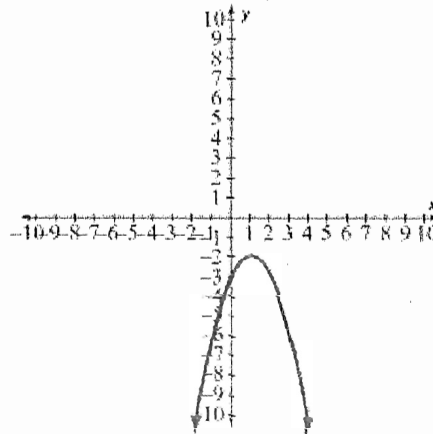
Graph:

$$f(x) = -x^2 + 2x - 3$$

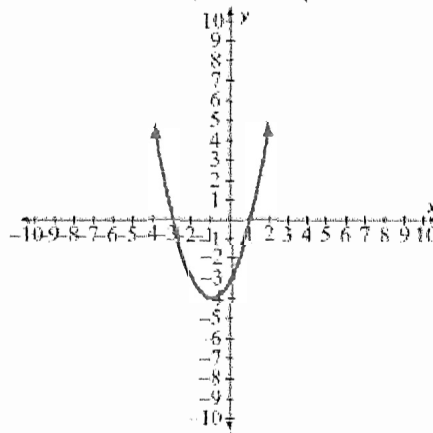
(A)



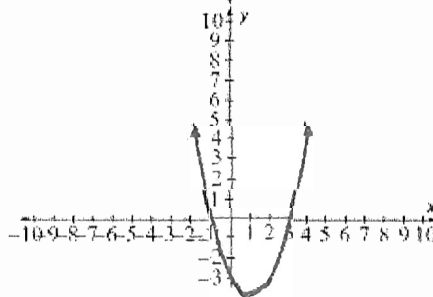
(B)



(C)



(D)



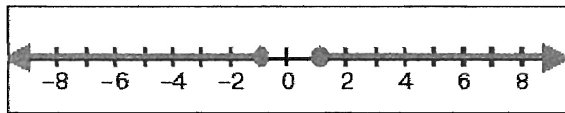
Question: 8 QID: 42811

Solve for x .
 $7x - 16 < 8x + 2$

- (A) $(-\infty, -18)$
- (B) $(-\infty, \infty)$
- (C) $(-18, \infty)$
- (D) $(-18, 18)$
- (E) None of the above

Question: 9 QID: 47422

Find the inequality whose graph is shown below.



- (A) $|x| < 1$
- (B) $|x| > 1$
- (C) $|x| \geq 1$
- (D) $|x| \leq 1$
- (E) None of the above

Question: 10 QID: 41926

Solve:
 $|4x - 2| = 6$

- (A) $\{2, -1\}$
- (B) $\left\{3, \frac{3}{2}\right\}$
- (C) $\left\{-\frac{5}{2}, \frac{3}{2}\right\}$
- (D) $\{-2, -1\}$
- (E) None of the above

Question: 11 QID: 43131

Find the midpoint of the segment whose endpoints are $A(6, 4)$ and $B(-5, 9)$

- (A) $\left(\frac{1}{2}, \frac{13}{2}\right)$
- (B) $\left(2, -\frac{11}{4}\right)$
- (C) $\left(2, -\frac{5}{2}\right)$
- (D) $\left(\frac{1}{2}, -\frac{5}{2}\right)$
- (E) None of the above

Question: 12 QID: 18453

Identify the center and radius of the circle.

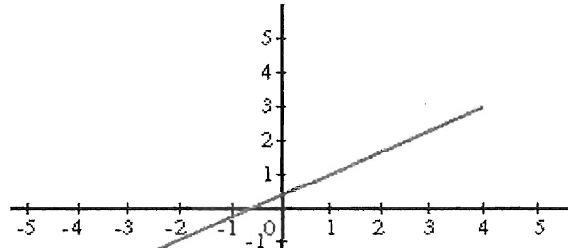
$$(x^2 - 4x + 4) + (y^2 + 6y + 9) = 16$$

- (A) $(-3, 4), 4$
- (B) $(2, -3), 4$
- (C) $(3, -1), 16$
- (D) $(-2, 3), 8$
- (E) None of the above

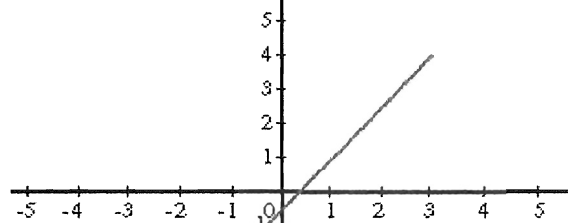
Question: 13 QID: 9326

Choose the graph of $-2x + 3y = 1$.

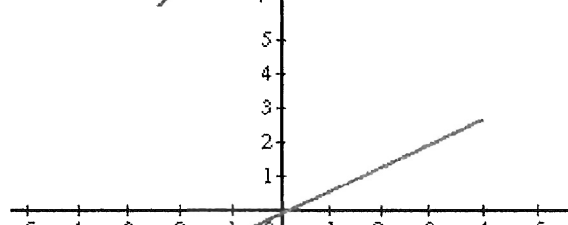
(A)



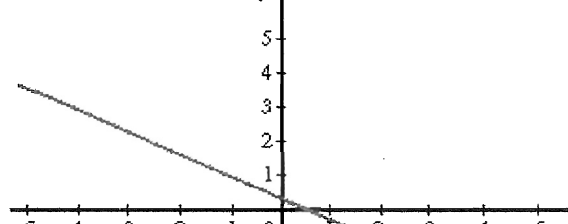
(B)



(C)



(D)



(E) None of the above

Question: 14 QID: 44584

Given $f(x) = |3x - 2|$ find the value of
 $f(-4) + f(-1)$.

- (A) 15
- (B) 9
- (C) 8
- (D) 19
- (E) None of the above

Question: 15 QID: 45192

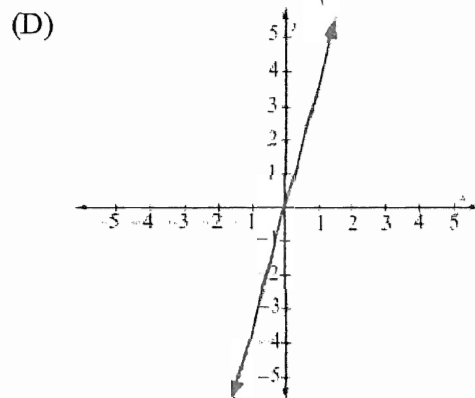
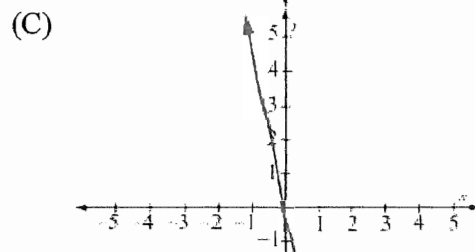
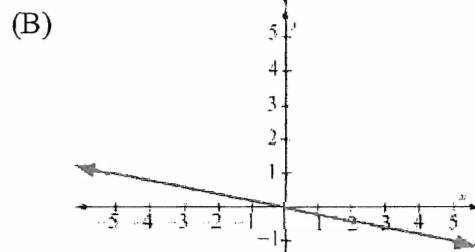
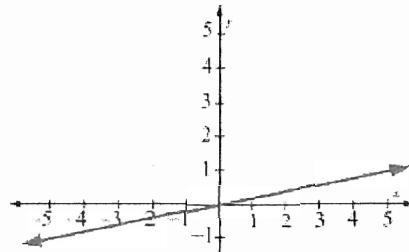
Find the slope of the line passing through the
given points:

$$\left(\frac{1}{2}, \frac{1}{3}\right) \text{ and } \left(\frac{3}{4}, \frac{4}{5}\right)$$

- (A) $\frac{28}{15}$
- (B) $-\frac{3}{10}$
- (C) $\frac{15}{28}$
- (D) $-\frac{10}{3}$
- (E) None of the above

Question: 16 QID: 45323

Graph the line that goes through the origin and (A)
has slope $-\frac{1}{5}$.



Question: 17 QID: 27189

The equation of a line is $2x - \frac{2}{3}y = 4$.

Find the slope and the y -intercept of the line.

- (A) slope = $-4/3$
 y -intercept = 4
- (B) slope = 3
 y -intercept = $-2/3$
- (C) slope = 3
 y -intercept = -6
- (D) slope = -2
 y -intercept = 5
- (E) None of the above

Question: 18 QID: 45591

Which shows the equation of a line, in slope-intercept form, that passes through the point $(-5, 5)$ and has slope -4 ?

- (A) $y = 4x - 15$
- (B) $y = 4x + 15$
- (C) $y = -4x + 15$
- (D) $y = -4x - 15$
- (E) None of the above

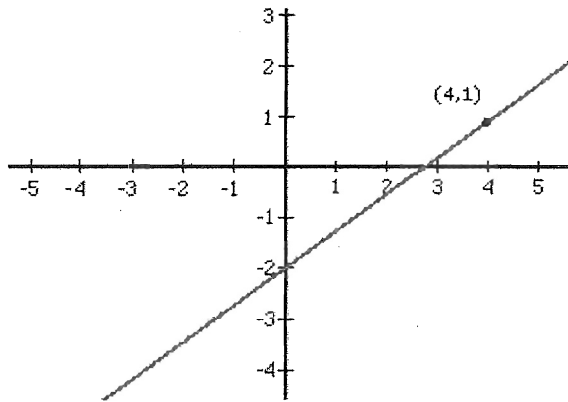
Question: 19 QID: 45966

Given the equation $y + 2 = 4(x - 1)$,
find the slope and a point on the line.

- (A) $m = 4, (1, 2)$
- (B) $m = 2, (4, 1)$
- (C) $m = 2, (4, -1)$
- (D) $m = 4, (1, -2)$
- (E) None of the above

Question: 20 QID: 9532

Given the graph, find the equation for the graph.



- (A) $y = \frac{4}{3}x - 2$
(B) $y = -\frac{4}{3}x - 2$
(C) $y = -\frac{3}{4}x - 2$
(D) $y = \frac{3}{4}x - 2$