Algebra Content Analysis 1 Page 1

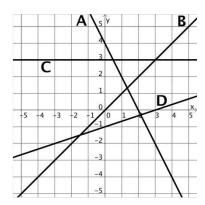
Solve for *x*: 19 = 3x + 4

*x* = \_\_\_\_\_

Evaluate  $a^2 - \frac{c}{2}$  when

a = 4 and c = 6

Which line on the graph represents the equation y + 2x = 4?



- A) Line A
- B) Line B
- C) Line C
- D) Line D

Simplify:

3(m+2) + 2(m-1)

A) 5

C) 15

- B)  $7^{\frac{2}{3}}$
- D) 45
- A) 1 B) 5 C) 13
- D) 34

- A) 5m + 1
- B) 5m + 4
- C) 5m + 8
- D) 6m + 4

Evaluate the	expression:
$6^{-2}$	

Solve the system of linear equations:

$$x - y = 4$$
$$x + 2y = 19$$

This graph shows the solution for which inequality?



Write the equation of a line in slope-intercept form if

slope = 
$$\frac{1}{2}$$
 and y-intercept = (0, 3).

$$\frac{1}{12}$$

C) -12

B)  $\frac{1}{36}$ 

D) -36

- A) (-2, 19)
- B) (-1, -5)
- C) (5, 8)
- D) (9, 5)

- A) -3x > 9
- B) x > -3
- C)  $2x \le -6$
- D)  $3x \ge 9$

A) 
$$x = \frac{1}{2}y - 3$$
 B)  $y = \frac{1}{2}x + 3$ 

(2) 
$$y = 3x + \frac{1}{2}$$
 (D)  $3y = \frac{1}{2}x + 3$ 

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Evaluate $d + 3c^2 + 2$ when $d = -5$ and $c = 1$	Solve for $n$ : 6n + 4 = -3n - 14 n =	Find the slope of a line that goes through the points $(1, -1)$ and $(5, 2)$ .	Simplify: $6(2k-3) - 3(2-k)$
A) 0 B) 3 C) 7 D) 78	A) 6 B) $-\frac{10}{9}$ C) $-\frac{10}{3}$ D) $-2$	A) $\frac{3}{4}$ B) $\frac{1}{5}$ C) $-\frac{4}{3}$ D) $-6$	A) $-18k - 12$ B) $9k - 24$ C) $11k - 9$ D) $15k - 24$

Simplify the expression:

$$\frac{a^2}{ab^3} \bullet \frac{b^4}{a^3}$$

Solve the system of linear equations:

$$-6x + 3y = -6$$
$$2x + 6y = 30$$

Simplify:

$$r^2 - 4r + 2r^2 + 7 - 5$$

Write the equation of a line that goes through the points (5, 3) and (4, 9). Use slope-intercept form.

$$A) \frac{a^8}{a^3b^3}$$

$$\frac{ab^8}{a^4b^3}$$

$$\frac{b}{a}$$

C) 
$$(4, -3)$$

A) 
$$-r^2 - 4r + 12$$

B) 
$$3r^2 - 4r + 2$$

C) 
$$3r^2 - 4r + 12$$

D) 
$$2r + 2$$

A) 
$$y = 33x - 6$$
 B)  $y = 6x + 30$ 

B) 
$$y = 6x + 30$$

C) 
$$y = -\frac{1}{6}x + 3\frac{5}{6}$$
 D)  $y = -6x + 33$