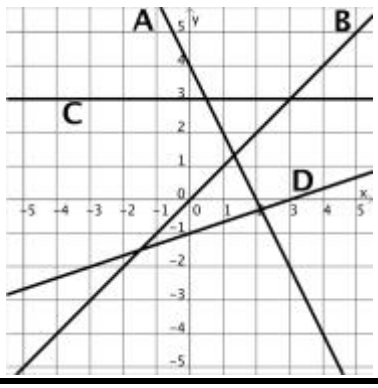
Solve for x:
$3x + 4 = 19$
$x =$

A) 8
B) 22
C) 15
D) 5

Evaluate $a^2 - b \div 2$ when $a = 4$ and $b = 6$

A) 1
B) 5
C) 10
D) 13

Which line on the graph is $y + 2x = 4$?



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

Simplify:
$3(m + 2) + 2(m - 1)$

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

Evaluate the expression:

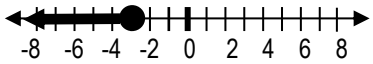
6^{-2}

A) -36
B) $\frac{1}{36}$
C) $\frac{1}{12}$
D) -12

Solve the linear system:
$x - y = 4$
$x + 2y = 19$

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

This graph shows the solution for which inequality?



A) $x > -3$
B) $2x \leq -6$
C) $-3x > 9$
D) $3x \geq 9$

Write the equation in slope-intercept form if $m = \frac{1}{2}$ and $b = 3$

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

Evaluate $d + 3c^2$ when $d = 5$ and $c = 2$

A) 11
B) 23
C) 17
D) 10

Solve for c:
$6c + 4 = -3c - 14$
$c =$

A) $-\frac{10}{3}$
B) -2
C) 2
D) 6

Find the slope of a line through $(1, -1)$ and $(5, 2)$.

A) $\frac{1}{5}$
B) $\frac{3}{4}$
C) -6
D) $-\frac{4}{3}$

Simplify:
$6(2b - 3) - 3(2 - b)$

A) $15b - 24$
B) $9b - 9$
C) $9b + 12$
D) $15b + 12$

Simplify the expression:

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

A) $\frac{a^8}{a^3b^3}$
B) $\frac{ab^8}{a^4b^3}$
C) $\frac{b}{a^2}$
D) $\frac{b}{a}$

Solve the linear system:
$-6x + 3y = -6$
$2x + 6y = 30$

A) $(6, 3)$
B) $(3, 4)$
C) $(2, 6)$
D) $(4, -3)$

Simplify:
$b^2 - 4b + 2b^2 + 7 - 5$

A) $3b^2 - 4b + 2$
B) $2b + 2$
C) $-b^2 - 4b + 12$
D) $3b^2 - 4b + 12$

Write the equation of a line through $(5, 3)$ and $(4, 9)$. Use point-slope form.

A) $y + 1 = 2(x - 4)$
B) $y + 4 = -6(x - 1)$
C) $y - 3 = -6(x - 5)$
D) $y = -6x + 30$

OSEP Award# H324C030060