

15. Which graph best presents the following system of equations and its solution?

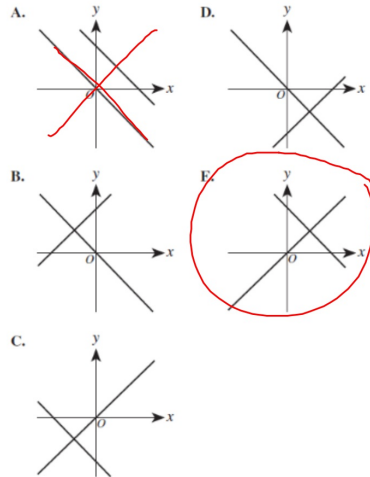
$$\begin{aligned} x + y &= 4 \\ x - y &= 0 \end{aligned}$$

$y = -x + 4$

$x + y = 4$

$x = \text{int } 4$

$y = \text{int } 4$



18. If $f(x) = 2x + 7$, $g(x) = 3x - 5$, and $h(x) = 2x + 6$, then $h(x) + [f(x) \cdot g(x)] - 6 = ?$

- ~~F.~~ $7x + 2$
- ~~G.~~ $7x + 8$
- H. $6x^2 + 13x - 29$
- J.** $6x^2 + 13x - 35$
- ~~K.~~ $12x^2 - 5x - 143$

22. If the range of $f(x) = x^2 + 4$ is all real numbers from 13 to 29, what positive numbers lie in the domain of $f(x)$?

- E.** $3 \leq x \leq 5$
- G. $5 \leq x \leq 21$
- H. $9 \leq x \leq 25$
- J. $13 \leq x \leq 29$
- K. $173 \leq x \leq 845$

$$\begin{aligned} 13 &= x^2 + 4 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} 29 &= x^2 + 4 \\ x &= 5 \end{aligned}$$

35. If $f(x) = \frac{5x+2}{3}$, what is the y-intercept of the graph of $f^{-1}(x)$?

- A. $-\frac{3}{2}$
- B.** $-\frac{2}{5}$
- C. $\frac{3}{5}$
- D. $\frac{2}{3}$
- E. $\frac{3}{2}$

$$\begin{aligned} x &= \frac{5y+2}{3} \\ \frac{3x-2}{5} &= y \end{aligned}$$