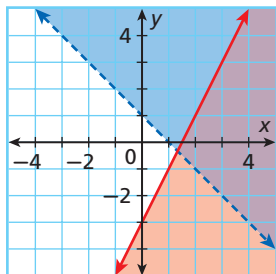


**CUMULATIVE ASSESSMENT, CHAPTERS 1-3**

**Multiple Choice**

- What are the intercepts of the linear equation  $2x + y - 5z = 20$ ?  
 (A)  $x = 0, y = 0, z = 0$   
 (B)  $x = 2, y = 1, z = -5$   
 (C)  $x = 10, y = 20, z = -4$   
 (D)  $x = 10, y = 20, z = 4$
- Sam attends college 440 miles from home. He figures he can make the trip home in about 8 hours driving an average highway speed of 60 miles per hour. Which function represents how many miles Sam is from home after he has been driving for  $x$  hours at 60 miles per hour?  
 (F)  $f(x) = 440 - 60x$   
 (G)  $f(x) = 440 + 60x$   
 (H)  $f(x) = 440 - 8x$   
 (J)  $f(x) = 60x$

- Which system of inequalities corresponds to the graph?



- |  |   |
|--|---|
| (A) $\begin{cases} y \leq 2x - 3 \\ y \geq -x + 1 \end{cases}$ | (C) $\begin{cases} y < 2x - 3 \\ y > -x + 1 \end{cases}$    |
| (B) $\begin{cases} y \leq 2x - 3 \\ y > -x + 1 \end{cases}$    | (D) $\begin{cases} y \geq 2x - 3 \\ y < -x + 1 \end{cases}$ |
- Kylie read the first 87 pages of a book in 3 hours 40 minutes. At this pace, how long will it take her to finish the book if it has a total of 214 pages?  
 (F) 1 hour 25 minutes  
 (F) 5 hours 5 minutes  
 (H) 9 hours 1 minutes  
 (J) 12 hours 41 minutes

- What is the equation of a line with a slope of  $-\frac{2}{5}$  passing through  $(1, 4)$ ?

(A) $y = -\frac{2}{5}x + 4\frac{2}{5}$	(C) $y = -\frac{1}{4}x - \frac{1}{10}$
(B) $y = -\frac{2}{5}x + 2\frac{3}{5}$	(D) $y = \frac{2}{5}x + 3\frac{3}{5}$

- Which system of equations is an independent system?

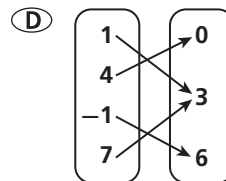
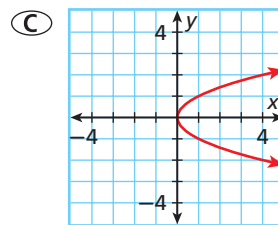
(F) $\begin{cases} 2y + 3x = -8 \\ 9x = -24 - 6y \end{cases}$	(H) $\begin{cases} 2y + 7x = 24 \\ 5y - 6 = -4x \end{cases}$
(G) $\begin{cases} y = -x + 4 \\ 3y + 3x = -21 \end{cases}$	(J) $\begin{cases} 2y = 3x - 6 \\ 8y - 12x = 80 \end{cases}$

- Which relation is a function?

(A)  $\{(1, 4), (4, 1), (1, 0), (0, 4)\}$

(B)

x	3	5	8	8	12
y	5	6	7	8	9



- A feasible region has vertices  $(0, 0)$ ,  $(-2, 6)$ ,  $(3, -1)$ ,  $(-1, 1)$ , and  $(-5, -5)$ . What is the maximum value of the objective function  $P = 4x - y$  over this region?

(F) 0	(H) 13
(G) 7	(J) 25