Drill 2

Answers can be found in Part IV.

3

$$2(n + 5) = 3(n - 2) + 8$$

In the equation above, what is the value of n?

A) 1

B) 3

C) 4

D) 8

7

$$2x - y > -3$$
$$4x + y < 5$$
$$y > -6$$

Which of the following points is in the solution set of the system of inequalities above?

A) (–4, –1)

B) (–3, –2)

C) (–1, –1)

D) (3, –5)

10

If $\frac{24x}{4} + \frac{1}{x} = 5$, what is the value of x?

A) $-\frac{1}{6}$

B) $\frac{1}{6}$

C) $\frac{1}{4}$

D) $\frac{1}{2}$

8

If $3^{x+2} = 243$, what is the value of x ?

A) 1

B) 2

C) 3

D) 4

20

$$-\frac{5}{7}-\frac{11}{7}u=-v$$
$$2v = 7 + 5u$$

Based on the system of equations above, what is the value of v ?

A) –4

B) –3

C) –1

D) 0

25

An alloy needs to contain between 10 and 15% of titanium. Which of the following inequalities represents the amount in kilograms, x, of a 20% titanium alloy that should be mixed with a 5% titanium alloy to produce 10 kilograms of an alloy with the acceptable percentage of titanium?

A) $1.33 \leq x \leq 1.67$

B) $2.25 \leq x \leq 3.25$

C) $3.33 \leq x \leq 6.67$

D) $7.25 \leq x \leq 9.75$