

1. $-3x + 5 < 2x - 15$

$$20 < 5x$$

$$4 < x$$

↳ en az 5 seçilebilir.

Cevap: B

2. $-3 < \frac{x-1}{5} < 2$ (her taraf 5 ile çarpılırsa)

$$-15 < x-1 < 10$$
 (her tarafa 1 eklenirse)

$$-14 < x < 11$$

Cevap: B

3. $\frac{2x-3}{2} + \frac{x-3}{3} > \frac{x}{2}$

$$\frac{6x-9+2x-6}{6} > \frac{3x}{6}$$

$$8x-15 > 3x$$

$$5x > 15 \rightarrow x > 3$$

↳ en az 4 olur.

Cevap: C

4. $15/ \frac{1}{5} < \frac{n}{15} < \frac{1}{3}$

$$\frac{15}{5} < 15 \cdot \frac{n}{15} < 15 \cdot \frac{1}{3}$$

$$3 < n < 5$$

↳ n sadece 4 değerini alabilir.

Cevap: A

5. $\frac{x-2}{\sqrt{5}-4} > \sqrt{5}+4$ ($\sqrt{5}-4 < 0$)

$$x-2 < (\sqrt{5}+4)(\sqrt{5}-4)$$

$$x-2 < 5-16$$

$$x-2 < -11$$

$$x < -9 \Rightarrow \text{ÇK: } (-\infty, -9)$$

Cevap: B

6. • $\frac{x-y}{y} < 3 \Rightarrow x-y < 3y$ ve $x < 4y$

• $\frac{y-z}{z} > 5 \Rightarrow y-z > 5z$ ve $y > 6z$

• $x < 4y$ ve $6z < y$

$$\begin{array}{ccc} \downarrow & \downarrow & \downarrow \downarrow \\ 2 & 7 & 1 \quad 7 \end{array}$$

O halde $x+y+z$ en az $2+7+1=10$ olur.

Cevap: D

7. • $\frac{2x+1}{x} = \frac{2x}{x} + \frac{1}{x} = 2 + \frac{1}{x}$

• $\frac{1}{10} < x < \frac{1}{5} \Rightarrow 5 < \frac{1}{x} < 10$

$$5+2 < \frac{1}{x} + 2 < 10+2$$

$$7 < \frac{1}{x} + 2 < 12$$

↳ 8, 9, 10, 11 → 4 tane

Cevap: C

8. $2a - b$ ifadesinin en büyük değerini bulmak için a büyük, b küçük seçilmeli.

$$2 \cdot a - b = 6 + 2 = 8 \text{ olur.}$$

$$\begin{array}{ccc} \downarrow & \downarrow & \\ 3 & -2 & \end{array}$$

Cevap: C

$$\begin{array}{rcl}
 9. & 3./ & -4 < x < 5 \quad \rightarrow \quad -12 < 3x < 15 \\
 & -2./ & 2 < y < 6 \quad \rightarrow \quad -12 < -2y < -4 \\
 & & + \\
 & & \hline
 & & -24 < 3x - 2y < 11 \\
 & & \downarrow \\
 & & \text{en az } -23 \text{ seçilebilir.}
 \end{array}$$

Cevap: D

$$\begin{array}{l}
 10. \cdot \quad 2a - b = 25 \Rightarrow b = 2a - 25 \\
 \cdot \quad -1 < b < 3 \\
 \quad \quad -1 < 2a - 25 < 3 \\
 \quad \quad 24 < 2a < 28 \\
 \quad \quad 12 < a < 14 \\
 \quad \quad \downarrow \\
 \quad \quad \text{a yalnız 13 değerini alabilir.}
 \end{array}$$

Cevap: A

$$\begin{array}{l}
 11. \cdot \quad -2 < x < 10 \text{ olarak verilmiş} \\
 \cdot \quad \frac{x}{0,25} = y \quad \Rightarrow \quad \frac{x}{\frac{25}{100}} = y \\
 \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \frac{100x}{25} = y \\
 \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad y = 4x \\
 \Rightarrow \quad -2 < x < 10 \\
 \quad \quad -2.4 < 4x < 4.10 \\
 \quad \quad -8 < y < 40 \quad \Rightarrow \quad (-8, 40) \text{ olur.}
 \end{array}$$

Cevap: E

12.

$$(2 \ m \ 5 \ n \ 7 \ k \ 12)$$

$$\begin{array}{rcl}
 \Rightarrow & & 2 < m < 5 \\
 & & 5 < n < 7 \\
 & + & 7 < k < 12 \\
 & & \hline
 & & 14 < m + n + k < 24 \\
 & & \downarrow \\
 & & \text{en az } 15 \text{ olur.}
 \end{array}$$

Cevap: C