

Answer Key (Equations Test Review)

$$\begin{array}{r} 1. \quad -15 + n = -1 \\ +15 \quad +15 \\ \hline n = 14 \end{array}$$

$$\begin{array}{r} 2. \quad 7 \cdot -13 = \frac{x}{7} \cdot 7 \\ -91 = x \end{array}$$

$$\begin{array}{r} 3. \quad \frac{-4}{3}p = 2\frac{2}{3} \\ \frac{3}{-4} \cdot \frac{-4}{3}p = \frac{2 \cdot 3}{3} \cdot \frac{3}{-4} \\ p = -2 \end{array}$$

$$\begin{array}{r} 4. \quad -10.458 = 4.2x \\ 4.2 \quad 4.2 \end{array}$$

$$\begin{array}{r} 2.49 \\ 42 \overline{) 104.58} \\ \underline{-84} \\ 205 \\ \underline{-168} \\ 378 \\ \underline{-378} \\ 0 \end{array}$$

$$-2.49 = x$$

$$\begin{array}{r} 5. \quad 4n + 7 = 71 \\ -7 \quad -7 \\ \hline 4n = 64 \\ 4 \quad 4 \\ \hline n = 16 \end{array}$$

$$\begin{array}{r} 6. \quad -6 + \frac{a}{6} = -8 \\ +6 \quad +6 \\ \hline 6 \cdot \frac{a}{6} = -2 \cdot 6 \\ a = -12 \end{array}$$

$$\begin{array}{r} 7. \quad 3 \cdot \frac{r+10}{3} = -2 \cdot 3 \\ r+10 = -6 \\ -10 \quad -10 \\ \hline r = -16 \end{array}$$

$$\begin{array}{r} 8. \quad -5a - 7 = -72 \\ +7 \quad +7 \\ \hline -5a = -65 \\ -5 \quad -5 \\ \hline a = 13 \end{array}$$

$$9. \quad 30 \left(\frac{1}{3}x + \frac{1}{2} \right) = \frac{47}{30}$$

$$\begin{array}{r} 10x + 15 = 47 \\ -15 \quad -15 \\ \hline 10x = 32 \\ 10 \quad 10 \\ \hline x = \frac{32}{10} = \frac{16}{5} \end{array}$$

$$x = \frac{32}{10} = \frac{16}{5}$$

$$10. \quad 8 \left(\frac{-29}{8} = 2 + \frac{3}{2}n \right)$$

$$\begin{array}{r} -29 = 16 + 12n \\ -16 \quad -16 \\ \hline -45 = 12n \\ 12 \quad 12 \\ \hline -\frac{45}{12} = n \\ -\frac{15}{4} = n \end{array}$$

$$-\frac{45}{12} = n$$

$$-\frac{15}{4} = n$$

Answer key (Exercises Test Review)

$$8 - 5 = \frac{0 + 7}{5} \cdot 5$$

$$3 = 0 + 7$$

$$0 = 0$$

KEEP

$$8 - 5 = 7 - 2$$

$$3 = 7 - 2$$

KEEP

KEEP

SCROLLING!!

$$\left(\frac{1}{2}x + 3 \right) = 5$$

$$7 - 2 = 5$$

$$5 = 5$$

$$0 = 0$$

$$0 = 0$$

$$\frac{1}{2}x + 3 = 5$$

$$\left(\frac{1}{2}x + 3 \right) = 5$$

$$7 - 2 = 5$$

$$5 = 5$$

$$0 = 0$$

$$0 = 0$$

$$0 = 0$$

$$0 = 0$$

$$1 - 2 + 2 = 1$$

$$1 = 1$$

$$1 - 2 + 2 = 1$$

KEEP

$$\left(\frac{1}{2}x + 3 \right) = 5$$

KEEP

$$1 - 2 + 2 = 1$$

$$\frac{1}{2}x + 3 = 5$$

KEEP

$$1 - 2 + 2 = 1$$

$$1 = 1$$

$$1 = 1$$

KEEP

$$1 - 2 + 2 = 1$$

$$1 = 1$$

$$1 - 2 + 2 = 1$$

KEEP

$$11. \begin{array}{r} 2.57 + \frac{n}{2} = 5.295 \\ -2.57 \quad -2.57 \\ \hline 2 \cdot \frac{n}{2} = 2.725 \cdot 2 \\ n = 5.45 \end{array}$$

$$16. \begin{array}{r} 24n + 2n = -6 - 3n \\ -2n = -6 - 3n \\ +3n \quad +3n \\ \hline 8 + n = -6 \\ 8 - \quad 8 - \\ \hline n = -6 \end{array}$$

$$12. \begin{array}{r} -0.81 - 0.3n = -0.27 \\ +0.81 \quad +0.81 \\ \hline -0.3n = 0.54 \\ -0.3 \quad -0.3 \\ \hline n = -1.8 \end{array}$$

$$17. \begin{array}{r} 105 = -7(-3r + 6) \\ 105 = 21r - 42 \\ +42 \quad +42 \\ \hline 147 = 21r \\ 21 \mid 147 \quad 21 \mid 21 \times 7 \\ \hline 7 = r \end{array}$$

$$13. \begin{array}{r} 3 - p - 9p = -27 \\ 3 - 10p = -27 \\ -3 \quad -3 \\ \hline -10p = -30 \\ -10 \quad -10 \\ \hline p = 3 \end{array}$$

$$18. \begin{array}{r} -4(1 + 7x) + 3 = -225 \\ -4 - 28x + 3 = -225 \\ -1 - 28x = -225 \\ +1 \quad +1 \\ \hline -28x = -224 \\ -28 \quad -28 \\ \hline x = 8 \end{array}$$

$$14. \begin{array}{r} 1 + 3x + 6x = 10 \\ 1 + 9x = 10 \\ -1 \quad -1 \\ \hline 9x = 9 \\ 9 \quad 9 \\ \hline x = 1 \end{array}$$

$$19. \begin{array}{r} a - 8 = -5(a + 1) + 7a \\ a - 8 = -5a - 5 + 7a \\ a - 8 = 2a - 5 \\ -a = -7 + 8 \\ -8 = a - 5 \\ +5 \quad +5 \\ \hline -3 = a \end{array}$$

$$15. \begin{array}{r} -10x + 11 = 3 - 9x \\ +10x \quad +10x \\ \hline 11 = 3 + x \\ -3 \quad -3 \\ \hline 8 = x \end{array}$$

$$20. -2(m+8) = 2m+8$$

$$-2m-16 = 2m+8$$

$$+2m \quad +2m$$

$$-16 = 4m + 8$$

$$-8 \quad -8$$

$$-24 = 4m$$

$$\frac{-24}{4} = \frac{4m}{4}$$

$$-6 = m$$

$$21. -20 + x^2 = 101$$

$$+20 \quad +20$$

$$\sqrt{x^2} = \sqrt{121}$$

$$x = \pm 11$$

$$22. x^3 = 11 = -75$$

$$+11 \quad +11$$

$$\sqrt[3]{x^3} = \sqrt[3]{-64}$$

$$x = -4$$

$$23. \text{variable: Laura: } 3b+7$$

$$\text{Penelope: } b$$

$$b + 3b + 7 = 103$$

$$\text{equation: } b + 3b + 7 = 103$$

$$4b + 7 = 103$$

$$-7 \quad -7$$

$$4b = 96$$

$$\frac{4b}{4} = \frac{96}{4}$$

$$b = 24$$

Solution: Laura has 79 bracelets

penelope has 24 bracelets

$$24. \text{variable: video game: } 3x$$

$$\text{CD: } x$$

$$x + 3x = 48$$

$$\text{equation: } x + 3x = 48$$

$$4x = 48$$

$$\frac{4x}{4} = \frac{48}{4}$$

$$x = 12$$

Solution: \$12

$$25. \text{variable: } x = \text{monthly payment}$$

$$\text{equation: } 24x + 145 = 907$$

$$-145 \quad -145$$

$$24x = 762$$

$$\frac{24x}{24} = \frac{762}{24}$$

$$x = 31.75$$

Solution: \$31.75