

Equations

Skill: Two Operations

key

Name _____

Solve. Show your work on another piece of paper.
Write your answers here.

Total Problems 38

Problems Correct _____

Percent Correct _____

1. $3x + 4 = 25$

$3x = 21$
 $x = 7$

2. $\frac{x}{4} + 3 = 11$

$\frac{x}{4} = 11 - 3$
 $x = 8(4) = 32$

3. $8 = 6x - 4$

$8 + 4 = 6x$
 $12 = 6x$
 $x = 2$

4. $\frac{p}{-5} + 6 = -5$

$(-5) \cdot \frac{p}{-5} = -11(-5)$
 $p = +55$

5. $-55 = -8n + 9$

$-55 - 9 = -8n + 9 - 9$
 $-64 = -8n$
 $\frac{-64}{-8} = \frac{-8n}{-8}$
 $n = 8$

6. $5x + 1 = 21$

$5x + 1 - 1 = 21 - 1$
 $5x = 20$
 $\frac{5x}{5} = \frac{20}{5}$
 $x = 4$

7. $-20 = -11s + 24$

$-20 - 24 = -11s + 24 - 24$
 $-44 = -11s$
 $\frac{-44}{-11} = \frac{-11s}{-11}$
 $s = 4$

8. $\frac{r}{8} + 5 = 4$

$\frac{r}{8} + 5 - 5 = 4 - 5$
 $(8) \cdot \frac{r}{8} = -1(8)$
 $r = -8$

9. $7x - 11 = 3$

$7x - 11 + 11 = 3 + 11$
 $7x = 14$
 $\frac{7x}{7} = \frac{14}{7}$
 $x = 2$

10. $8r - 7 = 17$

$= 3$

11. $20w + 5 = 85$

$= 4$

12. $12c - 16 = 44$

$= 30$

13. $13r - 11 = 28$

$= 3$

14. $\frac{c}{-3} + 16 = -5$

$= +13$

15. $3x - 8 = 28$

$x = 12$

16. $\frac{c}{8} + 9 = 15$

$= 32$

17. $-33 = -6r + 9$

$r = 7$

18. $7x - 3 = 18$

$x = 3$

19. $8n + 21 = -43$

$n = -8$

20. $63 = 9a - 27$

$= 10$

21. $8 - 2r = -12$

$r = 10$

22. $\frac{x}{7} - 5 = 6$

$= 77$

23. $9s + 13 = 85$

$s = 8$

24. $22 = 11 + \frac{x}{-4}$

$= -44$

25. $\frac{a}{-5} + 2 = -13$

$a = 75$

26. $20b - 93 = 7$

$= 5$

27. $\frac{n}{-12} + 8 = 10$

$n = -24$

28. $7a - 28 = 21$

$= 7$

29. $\frac{n}{10} - 3 = 8$

$n = 110$

30. $40 - 7x = -13$

$= 8$

31. $-28 = -9x + 17$

$x = 5$

32. $16 = \frac{c}{20} + 19$

$= -60$

33. $12r + 33 = 81$

$r = 4$

34. $\frac{n}{15} - 13 = -18$

$= -75$

35. $61 = 16 + 15a$

$a = 3$

36. $18 = 22 - \frac{n}{5}$

$n = 20$

37. $\frac{x}{-15} - 160 = -32$

$x = -1920$

38. $21x + 42 = -37$

$x = -3.76$

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$x = -3.76$

Equations p100

Answer Key

* Remember, isolate variable and...
What you do to one side you must do to the other

$$3x + 4 = 25$$

$$3x + 4 - 4 = 25 - 4$$

$$\frac{3x}{3} = \frac{21}{3}$$

$$x = 7$$

$$2) \frac{x}{4} + 3 = 11$$

$$\frac{x}{4} + 3 - 3 = 11 - 3$$

$$(4) \frac{x}{4} = 8 (4)$$

$$x = 32$$

$$1) 8 = 6x - 4$$

$$8 + 4 = 6x - 4 + 4$$

$$\frac{12}{6} = \frac{6x}{6}$$

$$2 = x$$

$$4) \frac{p}{-5} + 6 = -5$$

$$\frac{p}{-5} + 6 - 6 = -5 - 6$$

$$(-5) \frac{p}{-5} = -11 (-5)$$

$$p = +55$$

$$5) -55 = -8n + 9$$

$$-55 - 9 = -8n + 9 - 9$$

$$\frac{-64}{-8} = \frac{-8n}{-8}$$

$$+8 = n$$

$$6) 5x + 1 = 21$$

$$5x + 1 - 1 = 21 - 1$$

$$\frac{5x}{5} = \frac{20}{5}$$

$$x = 4$$

7 Equations p100

Answer Key

$$-20 = -11s + 24$$

$$-20 - 24 = -11s + 24 - 24$$

$$\frac{-44}{-11} = \frac{-11s}{-11}$$

$$+4 = s$$

$$8) \frac{r}{8} + 5 = 4$$

$$\frac{r}{8} + 5 - 5 = 4 - 5$$

$$(\cancel{8}) \frac{r}{8} = -1 (\cancel{8})$$

$$r = -8$$

$$9) 7x - 11 = 3$$

$$7x - 11 + 11 = 3 + 11$$

$$\frac{7x}{7} = \frac{14}{7}$$

$$x = 2$$

$$10) 8r - 7 = 17$$

$$8r - 7 + 7 = 17 + 7$$

$$\frac{8r}{8} = \frac{24}{8}$$

$$r = 3$$

$$20w + 5 = 85$$

$$20w + 5 - 5 = 85 - 5$$

$$\frac{20w}{20} = \frac{80}{20}$$

$$w = 4$$

$$12) 12c - 16 = 44$$

$$12c - 16 + 16 = 44 + 16$$

$$\frac{12c}{12} = \frac{60}{12}$$

$$c = 5$$

Equations p100

Answer Key

$$13r - 11 = 28$$

$$13r - \cancel{11} + \cancel{11} = 28 + 11$$

$$\frac{13r}{13} = \frac{39}{13}$$

$$r = 3$$

$$14) \frac{c}{-3} + 16 = -5$$

$$\frac{c}{-3} + \cancel{16} - \cancel{16} = -5 + 16$$

$$(-3) \frac{c}{-3} = -21 \cdot (-3)$$

$$c = +63$$

$$6) \frac{c}{8} + 9 = 15$$

$$\frac{c}{8} + \cancel{9} - \cancel{9} = 15 - 9$$

$$(8) \frac{c}{8} = 6 (8)$$

$$c = 48$$

$$18) 7x - 3 = 18$$

$$7x - \cancel{3} + \cancel{3} = 18 + 3$$

$$\frac{7x}{7} = \frac{21}{7}$$

$$x = 3$$

$$3) 63 = 9a - 27$$

$$63 + 27 = 9a - \cancel{27} + \cancel{27}$$

$$\frac{90}{9} = \frac{9a}{9}$$

$$10 = a$$

$$22) \frac{x}{7} - 5 = 6$$

$$\frac{x}{7} - \cancel{5} + \cancel{5} = 6 + 5$$

$$(7) \frac{x}{7} = 11 (7)$$

$$x = 77$$

$$9) 22 = 11 + \frac{x}{-4}$$

$$22 - 11 = 11 - 11 + \frac{x}{-4}$$

$$4) 11 = \frac{x}{-4} (-4)$$

$$\boxed{44 = x}$$

$$26) 20b - 93 = 7$$

$$20b - 93 + 93 = 7 + 93$$

$$\frac{20b}{20} = \frac{100}{20}$$

$$\boxed{b = 5}$$

$$28) 7a - 28 = 21$$

$$7a - 28 + 28 = 21 + 28$$

$$\frac{7a}{7} = \frac{49}{7}$$

$$\boxed{a = 7}$$

$$30) 40 - 7x = -16$$

$$40 - 40 - 7x = -16 - 40$$

$$\frac{-7x}{-7} = \frac{-56}{-7}$$

$$\boxed{x = +8}$$

$$32) 16 = \frac{c}{20} + 19$$

$$16 - 19 = \frac{c}{20} + 19 - 19$$

$$-3 = \frac{c}{20} (20)$$

$$\boxed{-60 = c}$$

$$34) \frac{n}{15} - 13 = -18$$

$$\frac{n}{15} - 13 + 13 = -18 + 13$$

$$45) \frac{n}{15} = -5 (15)$$

$$\boxed{n = -75}$$