

By Daniel We

$$1. 28 - 3c = 25$$

$$3c = 25 - 28$$

$$3c \div 3 = -3 \div 3$$

$$c = -1$$

$$2. -47 = -3x - 8$$

$$-47 + 8 = -3x - 8 + 8$$

$$-39 = -3x$$

$$13 = x$$

$$3. 9h - 25 = -25$$

$$9h - 25 + 25 = -25 + 25$$

$$9h = 0$$

$$h = 0$$

$$4. 156 = 8u - 132$$

$$156 + 132 = 8u - 132 + 132$$

$$288 = 8u$$

$$288 \div 8 = 8u \div 8$$

$$36 = u$$

$$5. -44 = 26d - 200$$

$$-44 + 200 = 26d - 200 + 200$$

$$156 = 26d$$

$$156 \div 26 = 26d \div 26$$

$$6 = d$$

$$6. 15 = 4 - \frac{a}{7}$$

$$15 - 4 = \frac{a}{7}$$

$$11 \times 7 = \frac{a}{7} \times 7$$

$$77 = a$$

$$7. \frac{1}{10}d + 20 = 16$$

$$\frac{1}{10}d + 20 - 20 = 16 - 20$$

$$\frac{1}{10}d = -4$$

$$\frac{1}{10}d \div \frac{1}{10} = -4 \div \frac{1}{10}$$

$$d = -40$$

$$8. \frac{24}{5} + 5 = -9$$

$$\frac{24}{5} + 5 - 5 = -9 - 5$$

$$\frac{24}{5} = -14$$

$$\frac{24}{5} \times 5 = -14 \times 5$$

$$24 = -70$$

$$24 \div 2 = -70 \div 2$$

$$12 = -35$$

$$9. -\frac{8}{3}c - 2 = 6$$

$$-\frac{8}{3}c - 2 + 2 = 6 + 2$$

$$-\frac{8}{3}c = 8$$

$$-\frac{8}{3}c \div -\frac{8}{3} = 8 \div -\frac{8}{3}$$

$$c = -3$$

$$10. 20 = \frac{4n}{7} + 8$$

$$20 - 8 = \frac{4n}{7} + 8 - 8$$

$$12 = \frac{4n}{7}$$

$$12 \times 7 = \frac{4n}{7} \times 7$$

$$84 = 4n$$

$$84 \div 4 = 4n \div 4$$

$$21 = n$$

$$11. -85 = 11c - (-6c)$$

$$-85 = 17c$$

$$-85 \div 17 = 17c \div 17$$

$$-5 = c$$

$$12. \frac{4}{5}d - \frac{2}{5}d = \frac{1}{10}$$

$$\frac{2}{5}d = \frac{1}{10}$$

$$\frac{2}{5}d \div \frac{2}{5} = \frac{1}{10} \div \frac{2}{5}$$

$$d = \frac{1}{4}$$

$$13. 50 = 16w + 4w$$

$$50 = 20w$$

$$50 \div 20 = 20w \div 20$$

$$\frac{5}{2} = w$$

$$14. 14y - 5y = 9$$

$$9y = 9$$

$$9y \div 9 = 9 \div 9$$

$$y = 1$$

$$15. 78 = 7a - 10a$$

$$78 = -3a$$

$$78 \div -3 = -3a \div -3$$

$$-26 = a$$

$$16. -64 = x + (-9x)$$

$$-64 = -8x$$

$$-64 \div -8 = -8x \div -8$$

$$8 = x$$

$$17. 0 = 12r + (-16r)$$

$$0 = -4r$$

$$0 = r$$

$$18. -9a = -8c + 17c$$

$$-9a = 9c$$

$$-9a \div 9 = 9c \div 9$$

$$-1 = c$$

$$21. 4y - 10 = 3y$$

$$-10 = 3y - 4y$$

$$-10 = -1y$$

$$10 = y$$

$$22. 2c = 4c - 6$$

$$2c - 4c = -6$$

$$-2c = -6$$

$$c = 3$$

$$23. 5 - 3w = 2w$$

$$5 = 2w + 3w$$

$$5 = 5w$$

$$1 = w$$

$$24. 6d = 4d - 8$$

$$6d - 4d = -8$$

$$2d = -8$$

$$d = -4$$

$$25. 9k - 12 = -5k$$

$$-12 = -5k - 9k$$

$$-12 = -14k$$

$$\frac{6}{7} = k$$

$$26. 3 + 5y = 9y$$

$$3 + 5y - 5y = 9y - 5y$$

$$3 = 4y$$

$$0.75 = y$$

$$27. 7r - 5 = 2r + 5$$

$$7r - 2r = 5 + 5$$

$$5r = 10$$

$$r = 2$$

$$28. 3m - 2 = 2m + 4$$

$$3m - 2m = 4 + 2$$

$$m = 6$$

$$29. 4p + 7 = 5p + 4$$

$$4p - 5p = 4 - 7$$

$$-1p = -3$$

$$p = 3$$

$$30. 4y + 3 = 2y - 7$$

$$3 + 7 = 2y - 4y$$

$$10 = -2y$$

$$-5 = y$$

$$31. 6 - 2g = 3g + 6$$

$$6 - 6 = 3g + 2g$$

$$0 = 5g$$

$$0 = g$$

$$32. 6u + 7 - 3u = 8 + 5u - 11$$

$$6u - 5u - 3u = 8 - 11$$

$$-2u = -3$$

$$u = 1.5$$

$$33. 7 - 3t + 4 = 5t - 1 + 4t$$

$$7 + 4 = 5t + 3t + 4t$$

$$12 = 12t$$

$$1 = t$$

$$34. 5w + 2 - 8w = 5 - 3w + 1$$

$$5w + 3w - 8w = 5 - 2 + 1$$

$$0w = 4$$

$$X$$

$$35. 20 - 4u + 3 = 5u - 8 + 2u$$

$$20 + 3 = 5u + 4u + 2u$$

$$23 = 11u$$

$$2.09 = u$$

$$36. 2(4 - c) = 3(2 - c)$$

$$2 \times 4 - 2c = 3 \times 2 - 3c$$

$$8 - 2c = 6 - 3c$$

$$3c - 2c = -2$$

$$c = -2$$

$$37. 2(3u + 10) = 5(4 - 2u)$$

$$6u + 20 = 20 - 10u$$

$$6u + 10u = 20 - 20$$

$$16u = 0$$

$$u = 0$$

$$38. 7(3k - 8) = -4(6k + 3)$$

$$21k - 56 = -24k - 12$$

$$21k - (-24k) = -12 + 56$$

$$45k = 44$$

$$k = \frac{44}{45}$$

$$39. 6(4 - 3s) = -2(5 + 9s)$$

$$24 - 18s = -10 + 18s$$

$$24 - 10 = -18s + 18s$$

$$34 = 0s$$

$$X$$

$$19. 12y - 12y = -5$$

X

$$20. \frac{3}{7}a + \frac{6}{7}a = 18$$

$$\frac{9}{7}a = 18$$

$$\frac{9}{7}a \div \frac{9}{7} = 18 \div \frac{9}{7}$$

$$a = 14$$

$$21. 4y - 10 = 3y$$

$$-10 = 3y - 4y$$

$$-10 = -1y$$

$$-10 \div -1 = -1y \div -1$$

$$10 = y$$

$$22. 2c = 4c - 6$$

$$2c - 4c = -6$$

$$-2c = -6$$

$$-2c \div -2 = -6 \div -2$$

$$c = 3$$

$$23. 5 - 3w = 2w$$

$$5 = 2w + 3w$$

$$5 = 5w$$

$$5 \div 5 = 5w \div 5$$

$$1 = w$$

$$24. 6d = 4d - 8$$

$$6d - 4d = -8$$

$$2d = -8$$

$$2d \div 2 = -8 \div 2$$

$$d = -4$$

$$25. 9k - 12 = -5k$$

$$-12 = -5k - 9k$$

$$-12 = -14k$$

$$-12 \div -14 = -14k \div -14$$

$$\frac{6}{7} = k$$

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$$\underline{3(x)} = x + x + x$$

$$\underline{3(x+5)} = (\underline{x+5}) + (\underline{x+5}) + (\underline{x+5})$$

$$= \underline{3x} + \underline{15}$$