

odds

M7+: Unit 3 - Equations STUDY GUIDE -

SWOSP!!

NO Calculator!

Short Answer

2. Caitlin had \$318 in her bank account. She withdrew \$14 each week to pay for a swimming lesson. She now has \$136.
- Write an equation that can be used to find the number of swimming lessons that she paid for.
 - How many swimming lessons did she pay for?
 - At the time she had \$136, the cost of a lesson rose to \$19. How many lessons can she pay for with her remaining \$136?

3. Cars For You will rent a car for \$17 per day plus \$.23 per mile driven. Rent-A-Rama will rent the same car for \$26 per day plus \$.13 per mile driven.
- Write an equation that represents the situation when the total rental cost for one day is the same at both rental agencies.
 - For how many miles is the total rental cost for one day the same for each car?
 - If you plan to rent a car for one day and drive 100 miles, which rental agency should you choose?

see other paper

4. A customer went to a garden shop and bought some potting soil for \$16.50 and 6 shrubs. The total bill was \$72.00. Write and solve an equation to find the price of each shrub.

5. The fare for riding in a taxi is a \$3 fixed charge and \$0.80 per mile. The fare for a ride of d miles is \$6.75. Write an equation that could be used to find d .

$$3 + 0.80d = 6.75$$

7. Write an equation to find three consecutive even integers whose sum is -132.

$$x + (x+2) + (x+4) = -132$$

8. Write an equation to find four consecutive integers whose sum is 206.

9. Ms. Baker purchased a number of juice packs at a cost of \$0.30 each and a loaf of bread that cost \$1.19. The total cost of her purchases was \$2.99. Write an equation that you can use to determine how many juice packs Ms. Baker purchased.

$$0.30j + 1.19 = 2.99 \quad j = \text{juice}$$

Solve the equation.

10. $v - \frac{3}{10} = \frac{2}{3}$

11. $\frac{4}{3}x = 28$ $x = \frac{28}{\frac{4}{3}} = \frac{28 \cdot 3}{4} = \boxed{35}$

12. $-6 = \frac{x}{8} + 4$

24. $-27 + 3x = 3$

25. $\frac{x}{2} - 10 = -3$
 $\frac{x}{2} = 7 \cdot 2$
 $x = 14$

27. $6d + 10d = 40$
 $-4d = 40$
 $d = -10$

29. $72 = -2(m + 3) + m$
 $72 = -2m + (-2)(3) + m$

$72 = -2m + -6 + m$

$72 = -1m + -6$

30. $6 = 2(x + 8) - 5x$

$78 = -1m$
 $m = -78$

32. $\frac{3}{4}(x - 12) = 3$

33. $\frac{2}{7}y + 2 = \frac{8}{7} - 2$
 $\frac{2}{7}y = \frac{8}{7} - \frac{2 \cdot 14}{7}$

36. $x + 9 = 5(4x - 2)$

$\frac{2}{7}y = \frac{-6}{7}$
 $y = \frac{-6}{7} \cdot \frac{7}{2} = -3$

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13. $57 - 14 + 7w = 113$

$43 + 7w = 113$
 -43

$7w = 70$
 $w = 10$

15. $3.9x + 4.7 = 12.5$
 -4.7

$3.9x = 7.8$
 $x = 2$

18. $3p - 1 = 5(p - 1) - 2(7 - 2p)$

19. $4x + 8 = 3x + 6$
 $-3x$

$1x + 8 = 6$
 -8

$x = -2$

20. $-6y + 14 + 4y = 32$

22. $7p - 7 + 2p = 11$