

2-1**Practice**

Form K

Solving One-Step Equations**Solve each equation using addition or subtraction. Check your answer.**

1. $6 = p - 8$ **14**

2. $z + 5 = 4$ **-1**

3. $m - 4 = 12$ **16**

4. $-10 = h - 4$ **-6**

5. $n + 14 = -5$ **-19**

6. $2 = a + 7$ **-5**

Solve each equation using multiplication or division. Check your answer.

7. $4t = -32$ **-8**

8. $-25 = -5x$ **5**

9. $-3.2k = 16$ **-5**

10. $2.8r = 16.8$ **6**

11. $\frac{m}{7} = 4$ **28**

12. $25 = \frac{z}{-4}$ **-100**

Solve each equation. Check your answer.

13. $\frac{3}{4}b = 15$ **20**

14. $-8 = \frac{2}{5}t$ **-20**

15. $\frac{9}{10}y = -36$ **-40**

16. $\frac{1}{2}m = \frac{6}{11}$ **$\frac{12}{11}$**

2-1**Practice** (continued)

Form K

Solving One-Step Equations

Define a variable and write an equation for each situation. Then solve.

17. Bradley has a goal to work 28 hours each week at the pizza shop. So far he has worked 12 hours. How many more hours does he need to work to meet his goal?

$$h + 12 = 28; 16 \text{ hrs}$$

18. Sheree is 4 times as old as Benjamin. If Sheree is 72 years old, how old is Benjamin?

$$4B = 72; 18 \text{ years old}$$

Solve each equation. Check your answer.

19. $-8h = 26$ $-3\frac{1}{4}$

20. $-\frac{3}{5} = \frac{1}{10} + q$ $-\frac{7}{10}$

21. $n + 3\frac{2}{3} = 5\frac{7}{9}$ $2\frac{1}{9}$

22. $-9w = 6.3$ -0.7

23. $5.8 = -4.5 + z$ 10.3

24. $\frac{d}{5} = -\frac{3}{10}$ $-\frac{3}{2}$

25. A youth club is taking a field trip to a community farm. 27 members attended the trip. The total cost for the club was \$148.50.

a. Write and solve an equation to determine the cost for each person.

$$27x = 148.50; \$5.50$$

b. The farm brought in \$1512.50 that day including what they received from the youth club. Write and solve an equation to find the number of people that visited the community farm that day.

$$5.50p = 1512.5; 275 \text{ people}$$

2-2**Practice**

Form K

Solving Two-Step Equations

Solve each equation. Check your answer.

1. $4x + 5 = 13$ **2**

2. $-8 + 3h = 1$ **3**

3. $2j - 13 = 25$ **19**

4. $\frac{n}{5} - 1 = 7$ **40**

5. $-5 = -8 + \frac{y}{10}$ **30**

6. $7 = -6m + 7$ **0**

7. $\frac{n}{-8} - 5 = -2$ **-24**

8. $-14 = -6 + 4w$ **-2**

9. $15 - 3t = -12$ **9**

10. $13 + \frac{a}{11} = 7$ **-66**

Define a variable and write an equation for each situation. Then solve.

11. A fair charges \$7.25 for admission and \$5.50 for a ride pass. Ten friends visited the fair. Not all of the friends purchased ride passes. If their total cost was \$105.50, how many friends purchased ride passes?

Let r represent the ride passes; $72.50 + 5.50r = 105.50$; 6 ride passes

12. A cafeteria sells entrées and additional items. An entrée costs \$4.75, and each additional item costs \$1.25. A customer pays \$9.75 for one entrée and some additional items. How many additional items were ordered?

Let a represent the additional items; $4.75 + 1.25a = 9.75$; 4 items

2-2**Practice** (continued)

Form K

Solving Two-Step Equations

Solve each equation. Check your answer.

13. $\frac{f+4}{2} = 5$ **6**

14. $\frac{p-6}{3} = -15$ **-39**

15. $\frac{c+5}{-6} = -4$ **19**

16. $\frac{1}{4}z + 9 = -1$ **-40**

17. $\frac{1}{2} = \frac{1}{2}t + 3$ **-5**

18. $4.52 - 5h = 2.8$ **0.344**

19. Jasmine is 23 years old. Jasmine is 3 years less than half of George's age. Write and solve an equation to find George's age.

$$\frac{1}{2}G - 3 = 23; 52 \text{ years old}$$

20. An appliance repair person charges \$55 per trip plus \$15 per hour for her labor. The cost of fixing a stove was \$92.50. Write and solve an equation to find how many hours it took to repair the stove.

$$55 + 15h = 92.50; 2.5 \text{ hrs}$$

21. Shelly has a cell phone plan that costs \$9.99 per month plus \$0.05 per minute. Her total bill for the month is \$25.59. Write and solve an equation to find how many minutes she used for the month.

$$9.99 + 0.05m = 25.59; 312 \text{ minutes}$$

22. **Writing** Describe using words how to solve the equation $3 - 5n = -22$. Describe the properties utilized in the solution.

Sample: Use the subtraction property of equality to subtract 3 from both sides. The equation becomes $-5n = -25$. Use the division property of equality to divide each side by -5 . The solution is 5.