

KEY KEY KEY KEY KEY

MODULE F

Topic: Solving Equations

On a separate piece of paper, solve each of the following.

1. $-2(3x - 3) = 2x$

$\frac{3}{4}$

2. $4(3n - 3) = (3n + 8) + 5$

$\frac{25}{9}$

3. $-4(x - 9) + 5 = 41$

0

4. $\frac{3}{10}x - \frac{2}{5} = -1$

-2

5. $\frac{x}{2} - 6 = \frac{x}{5} - 3$

10

6. $\frac{x}{2} - 4 = \frac{x}{5} - 1$

10

7. $\frac{3(x + 3)}{5} = 2x - 4$

$\frac{29}{7}$

8. $0.50x + .50(10) = .25(36)$

8

9. $0.08(y - 7) + 0.02y = 0.18y - 0.01(50)$

$-\frac{3}{4}$

10. $6(2x - 6) + 5 = 12x - 31$

all real numbers

11. $7x + 4 = 7(x - 3)$

no solution

12. $5(4x + 5) + 6 = 20x + 31$

all real numbers

13. $5x + \frac{3}{5} = 6x - \frac{7}{5}$

2

14. $-4(t - 3) + 9t = 3t - 8$

-10

15. $\frac{x}{6} + \frac{3}{4} = \frac{x-1}{4}$

12

16. $\frac{2}{3}x + 4 - \frac{5}{6} = 0$

$-\frac{19}{4}$

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MODULE F

Topic: Solving Word Problems

Use the 5-step problem solving system to solve the following word problems.

1. The difference between a number and 8 is the same as twice the number. Find the number. -8
2. Mike and Stephanie work at the same company and make a total of \$2760 per month. If Stephanie makes \$1400 a month, how much does Mike earn a month? \$1360
3. The sum of two consecutive integers is 145. Find the integers. 72 and 73
4. The sum of twice a number and 8 is the same as the difference of the number and 4. Find the number. -12
5. The sum of three consecutive even integers is 126. What are the three integers? 40, 42, 44
6. Yuri has a board that is 98 inches long. He wishes to cut the board into two pieces so that one piece is three times as long as the other piece. How long is each piece? 24.5 in, 73.5 in
7. On her vacation in Europe, Jovita's expenses for food and lodging were \$60 less than twice as much as her airfare. If she spent \$2400 in all, what was her airfare? \$820
8. One more than three-fifths of a number is -29. Find the number. -50
9. The sum of two numbers is 23. The larger number is five more than twice the smaller number. Find the two numbers. 6 and 17
10. I am thinking of three consecutive odd integers. If I double the smallest and add that to the largest I get 133. What are the three numbers? 43, 45, and 47
11. The sum of four consecutive integers is 426. Find the smallest and the largest of these numbers. 105 and 108
12. An investment of \$10,000 is divided into two accounts, one for stocks and one for mutual funds. The value of the stock account is \$2000 less than twice the value of the mutual fund account. Find the amount in each account. \$6000 and \$4000
13. A 72-pound soil fertilizer contains nitrogen, iron, and potassium. There is twice as much potassium as iron, and three times as much nitrogen as iron. How many pounds of potassium are in the fertilizer? 24 lbs
14. Kathy spent \$288 when shopping. She spent \$22 more on a coat than she did on a chiffon prom dress. The glittery silver shoes she bought were \$20 less than the coat. How much did Kathy spend of the glitter silver shoes? \$90

MODULE F REVIEW SHEET #2 KEY

1) $\frac{49}{16} = 3\frac{1}{16}$

2) -21

3) 0.432

4) $-\frac{5}{9}$

5) A. 1

B. 0

6) $x = -\frac{33}{4}$

7) $x = \frac{164}{17}$

8) no solution

9) all real numbers

10) $x = 0$

11) $A - B = 3$, $B = A - 3$, $B + 3 = A$

12) $4x + 2y = 20$, $6x + 3y = 30$

13) A. Joe's favorite number is 37.

B. Kathy spent \$12.50 on the DVD, \$25 on the video game,
and \$18.50 on snacks.

C. The numbers are 37, 39, and 41.

D. Rick collected \$2,200.