

PAGE 271-274
QUESTIONS

5, 6, 8(all), 9(ab) ,
10(abcd),11, 13,
14, 16, 18, 20

Section 6.1 Solving Equations

Page 271- 274

Homework Solutions

5) Solve the following by using inverse operations

a) $2s = 6$

b) $\frac{x}{3} = 5$

c) $5e = -35$

d) $\frac{x}{2} = -7$

e) $-9w = 2.7$

d) $\frac{c}{5} = -1.2$

6) Solve the following by using inverse operations

a) $3x + 2 = 8$

b) $-5a - 6 = 7$

c) $\frac{m}{2} - 6 = 1$

d) $\frac{r}{8} + 5.5 = 2$

8. Solve the following using inverse operations.
Show ALL work:

a) $4x = 9.6$

b) $10 = 3b - 12.5$

c) $-5.25x = -210$

d) $-0.5 = -2x + 8.1$

e) $250 + 3.5n = 670$

f) $-22.5 = -2c - 30.5$

9. For each statement below, write then solve an equation to determine the number.

Verify the solution.

a) Two times a number is -10 .

b) Three times a number, plus 6.4 , is 13.9 .

c) Four times a number is -8.8 .

d) Ten is equal to two times a number, plus 3.6 .

10. Solve each equation. Verify the solution.

a) $\frac{c}{3} = 15$

b) $\frac{m}{6} - 1.5 = -7$

c) $-1.5 = \frac{n}{4}$

d) $5 = \frac{q}{-2} - 5$

e) $\frac{2c}{5} = 1.2$

f) $1.2 = \frac{2a}{3} + 5.1$

11. For each statement below, write then solve an equation to determine the number.

Verify the solution.

a) A number divided by 4 is -7 .

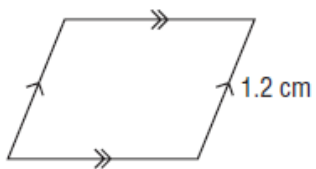
b) Three, plus a number divided by 5 is 6.

c) One-half of a number is 2.5.

d) One-third of a number, minus 4, is 2.

- 13.** Erica is thinking of a number.
If you divide her number by 3 then subtract 13.5, the result is 2.8.
- a) Let b represent Erica's number.
Write an equation to determine this number.
 - b) Solve the equation.
 - c) Verify the solution.

14. A parallelogram has one shorter side of length 1.2 cm and perimeter 6.6 cm.



- Write an equation that can be used to determine the length of the longer side.
- Solve the equation.
- Verify the solution.

16. Stephanie has a job in sales. She earns a monthly salary of \$2500, plus a commission of 8% of her sales. One month, Stephanie earns a total of \$2780. This can be represented by the equation

$$2780 = 2500 + 0.08s,$$

where s is Stephanie's sales in dollars.

- a) Solve the equation to determine Stephanie's sales for that month.
- b) Verify the solution.

Solve this equation

18. Solve each equation. Verify the solution.

a) $5(x - 7) = -15$

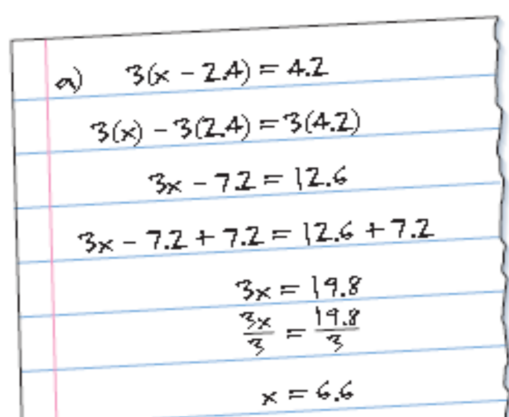
b) $2(m + 4) = 11$

c) $-3(t - 2.7) = 1.8$

d) $7.6 = -2(-3 - y)$

e) $8.4 = -6(a + 2.4)$

20. On a test, a student solved these equations:


$$\begin{aligned} a) \quad & 3(x - 2.4) = 4.2 \\ & 3(x) - 3(2.4) = 3(4.2) \\ & 3x - 7.2 = 12.6 \\ & 3x - 7.2 + 7.2 = 12.6 + 7.2 \\ & 3x = 19.8 \\ & \frac{3x}{3} = \frac{19.8}{3} \\ & x = 6.6 \end{aligned}$$

$$\underline{3(x - 2.4) = 4.2}$$