

Class/Homework

Page 281 - 283

6) Solve the following using inverse operations

a) $4g = 7 - 3g$

b) $4k + 4 = -2k - 8$

c) $-4a - 3 = 3 - a$

d) $3h - 5 = 7 - 3h$

10. Solve each equation.

What strategy did you use?

Verify the solution.

a) $-12a = 15 - 15a$

b) $10.6y = 2.1y - 27.2$

c) $-10.8 + 7z = 5z$

d) $6u - 11.34 = 4.2u$

e) $-20.5 - 2.2b = -7.2b$

f) $-5.3p = -9 - 8.1$



11. Solve each equation. Verify the solution.

a) $2 - 3n = 2n + 7$

b) $13 - 3q = 4 - 2q$

c) $-2.4a + 3.7 = -16.1 + 3.1a$

d) $8.8v + 2.1 = 2.3v - 16.1$

e) $-2.5x - 2 = -5.7x + 6$

f) $6.4 - 9.3b = 25.3 - 3.9b$



12. Two rental halls are considered for a wedding.

Hall A costs \$50 per person.

Hall B costs \$2000, plus \$40 per person.

Determine the number of people for which the halls will cost the same to rent.

- a) Model this problem with an equation.
- b) Solve the problem.
- c) Verify the solution.

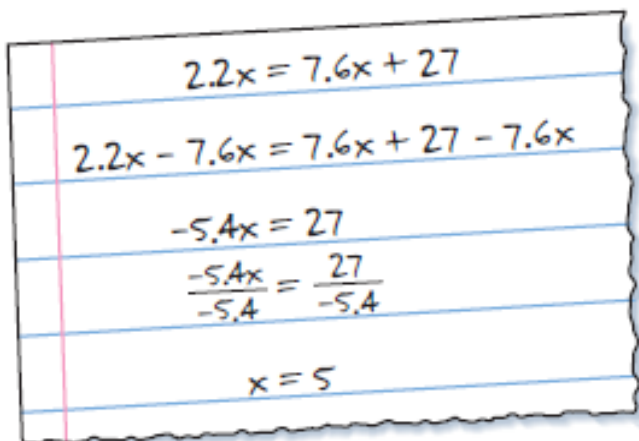
13. Five subtract 3 times a number is equal to 3.5 times the same number, subtract 8.

Write, then solve an equation to determine the number. Verify the solution.

15) Verify each student's work.

If the solution is incorrect, write a correct and complete solution.

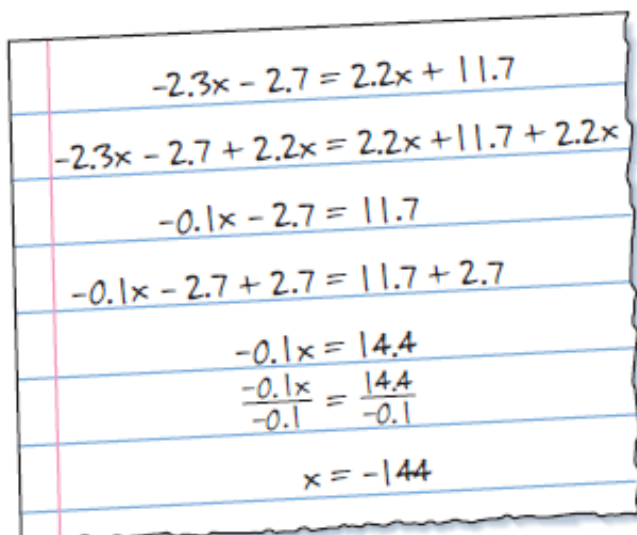
a) Student A:


$$\begin{aligned}2.2x &= 7.6x + 27 \\2.2x - 7.6x &= 7.6x + 27 - 7.6x \\-5.4x &= 27 \\ \frac{-5.4x}{-5.4} &= \frac{27}{-5.4} \\x &= 5\end{aligned}$$

15) Verify each student's work.

If the solution is incorrect, write a correct and complete solution.

b) Student B:



The image shows a piece of lined paper with handwritten work for solving a linear equation. The steps are as follows:

$$\begin{aligned} -2.3x - 2.7 &= 2.2x + 11.7 \\ -2.3x - 2.7 + 2.2x &= 2.2x + 11.7 + 2.2x \\ -0.1x - 2.7 &= 11.7 \\ -0.1x - 2.7 + 2.7 &= 11.7 + 2.7 \\ -0.1x &= 14.4 \\ \frac{-0.1x}{-0.1} &= \frac{14.4}{-0.1} \\ x &= -144 \end{aligned}$$

16. a) Solve each pair of equations.

i) $\frac{x}{27} = 3; \frac{27}{x} = 3, x \neq 0$

ii) $\frac{a}{36} = 12; \frac{36}{a} = 12, a \neq 0$



17. Solve each equation. Verify the solution.

a) $4(g + 5) = 5(g - 3)$

b) $3(4j + 5) = 2(-10 + 5j)$

c) $2.2(h - 5.3) = 0.2(-32.9 + h)$

d) $0.04(5 - s) = 0.05(6 - s)$



19. Solve each equation.

$$\text{a) } \frac{7}{2}(m + 12) = \frac{5}{2}(20 + m)$$

$$\text{b) } \frac{1}{3}(5 - 3t) = \frac{5}{6}(t - 2)$$

$$\text{c) } \frac{3}{2}(1 + 3r) = \frac{2}{3}(2 - 3r)$$

$$\text{d) } \frac{2}{3}(6x + 5) = \frac{4}{5}(20x - 7)$$

21. Solve each equation. Verify the solution.

a) $\frac{x}{4} + \frac{7}{4} = \frac{5}{6}$

b) $\frac{5x}{16} - \frac{5}{4} = \frac{x}{4}$

c) $2 - \frac{x}{24} = \frac{5x}{24} + 1$

d) $\frac{25}{9} + \frac{x}{9} = \frac{7x}{6} - \frac{5}{2}$

8. Solve each equation.

What strategy did you use?

Verify the solution.

a) $2.4 = \frac{4.8}{s}, s \neq 0$

b) $\frac{-5.4}{t} = 1.8, t \neq 0$

c) $-6.5 = \frac{-1.3}{w}, w \neq 0$