

Solve each equation.

1. $x - 2 = -4$

2. $\frac{3}{4} = \frac{1}{3} + f$

3. $9x + 5.5 = 10x$

4. $y + \frac{11}{25} = -\frac{3}{25}$

5. $3n + 2n = 7 + 4n$

6. $2y + 10 = 5y - 4y$

7. $-4(z - 3) = 2 - 3z$

8. $2x + 7 = x - 10$

9. $4p - 11 - p = 2 + 2p - 20$

10. $\frac{3}{8}x - \frac{1}{6} = -\frac{5}{8}x - \frac{2}{3}$

11. $3(y + 7) = 2y - 5$

12. $-5(x + 1) + 4(2x - 3) = 2(x + 2) - 8$

13. Two numbers have a sum of 20. If one number is p , express the other number in terms of p .

14. A 10-foot board is cut into two pieces. If one piece is x feet long, express the other length in terms of x .

15. Two angles are supplementary if their sum is 180° . If one angle measures x° , express the measure of its supplement in terms of x .

16. A nurses aide has two patients that are each to consume 1000ml of fluid for the night.

a. Patient intake thus far: 200 ml, 150 ml, and 400 ml.

To determine the remaining fluid needed for this patient, write and solve an equation for x .

b. Patient intake thus far: 100ml, 250 ml, and 500 ml.

To determine the remaining fluid needed for this patient, write and solve an equation for x .

17. Let $x = 1$ and then $x = 2$ in the equation $x + 5 = x + 6$. Is either number a solution? How many solutions do you think this equation has? Explain your answer.

