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Ready, Set, Go!

Ready

Topic: Substitution

Determine whether $h = 3$ is a solution to each problem.

1. $3(h - 4) = -3$

2. $3h = 2(h + 2) - 1$

3. $2h - 3 = h + 6$

4. $3h > -3$

5. $\frac{3}{5} = h \times \frac{1}{5}$

Topic: Solve equations

Determine the value of *x* that makes each equation true.

6. $4x - 2 = 8$

7. $3(x + 5) = 20$

8. $2x + 3 = 2x - 5$

Set

Topic: Creating equations, solving real world problems, solve systems of equations

A phone company offers a choice of three text-messaging plans. Plan A gives you unlimited text messages for $10 a month; Plan B gives you 60 text messages for $5 a month and then charges you $0.05 for each additional message; and Plan C has no monthly fee but charges you $0.10 per message.

9. Write an equation for the monthly cost of each of the three plans.

10. If you send 30 messages per month, which plan is cheapest?

11. What is the cost of each of the three plans if you send 50 messages per month?

12. Determine the values for which each plan is the cheapest?

Go

Topic: Solve literal equations

Re-write each of the following equations for the indicated variable.

13. $3x + 5y = 30$ for y

14. $24x + 6y = 360$ for x

15. $\frac{1280 - 80d}{32} = c$ for d

16. $C = \frac{5}{9}(F - 32)$ for F

17. $y = mx + b$ for b

18. $Ax + By = C$ for y

Need help? Check out these related videos.

What does it mean to be a solution?

http://patrickjmt.com/an-intro-to-solving-linear-equations-what-does-it-mean-to-be-a-solution/

http://patrickjmt.com/solving-linear-equations/

Solving for a variable.

http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-for-a-variable