10/19/17 CCM6+7+

Solve one-step equations.

Write and solve one-step equations from contexts.

HW: Finish page from class if needed
One-step Equations Quiz Friday (tomorrow)

✓ HW evens

Kuta Software - Infinite Pre-Algebra

Name_____

One-Step Equation Word Problems

Date_____ Period____

1) Lisa is cooking muffins. The recipe calls for 7 cups of sugar. She has already put in 2 cups. How many more cups does she need to put in?

2) At a restaurant, Mike and his three friends decided to divide the bill evenly. If each person paid $13 then what was the total bill?

$\frac{x}{4} = 13$ $x = 4(13)$

$x = \$52$

3) How many packages of diapers can you buy with $40 if one package costs $8?

4) Last Friday Trevon had $29. Over the weekend he received some money for cleaning the attic. He now has $41. How much money did he receive?

$x + 29 = 41$, $x = 41 - 29$

$x = \$12$

5) Last week Julia ran 30 miles more than Pranav. Julia ran 47 miles. How many miles did Pranav run?

6) How many boxes of envelopes can you buy with $12 if one box costs $3?

$3b = 12$, $b = \frac{12}{3}$

$b = 4$

7) Amanda and her best friend found some money buried in a field. They split the money evenly, each getting $24.28. How much money did they find?

8) Jenny wants to buy an MP3 player that costs $30.98. How much change does she receive if she gives the cashier $40?

$m + 30.98 = 40$

$m = 40 - 30.98$

$m = \$9.02$

√ HW

9) Last Friday Adam had $22.33. Over the weekend he received some money for cleaning the attic. He now has $32. How much money did he receive?

10) After paying $5.12 for a salad, Norachai has $27.10. How much money did he have before buying the salad?

$m - 5.12 = 27.10$

$m = 27.10 + 5.12$

$m = \$32.22$

11) A recipe for cookies calls for $3\frac{1}{4}$ cups of sugar. Amy has already put in $3\frac{1}{9}$ cups. How many more cups does she need to put in?

12) Your mother gave you $13.32 with which to buy a present. This covered $\frac{3}{5}$ of the cost. $\frac{3}{5} = \frac{6}{10}$ How much did the present cost?

$.6x = 13.32$

$x = \frac{13.32}{.6}$

$x = \$22.20$

22.2
.6 | 13.32
-12
13
-12
12
-12
0

13) If the weight of a package is multiplied by $\frac{5}{7}$ the result is 40.5 pounds. Find the weight of the package.

14) A stray dog ate 12 of your muffins. That was $\frac{3}{10}$ of all of them! With how many did you start?

$\frac{3}{10}x = 12$

$x = 12 \div \frac{3}{10}$

$x = \frac{4}{12} \cdot \frac{10}{3_1}$

$x = 40$

Solving equations with fraction coefficients

$\frac{7}{2} \cdot \frac{2}{7} a = \frac{22}{1} \cdot \frac{7}{2}$

$a = 77$

$1\frac{1}{2} m = 12$

$\frac{3}{2} \cdot \frac{3}{2} m = \frac{12}{1} \cdot \frac{2}{3}$

$m = 8$

$1\frac{1}{7} y = 24$

$\frac{8}{7} \cdot \frac{8}{7} y = \frac{24}{1} \cdot \frac{7}{8}$

$y = 21$

Mimi is x years old. Her brother is twice her age. Their combined ages is 33. How old are Mimi and her bro?

x = Mimi
2x = bro

$x + 2x = 33$

$3x = 33$

$x = 11$

Mimi = 11
Bro = 22

Name: _____ Date: _____ Core: _____

Notes: Writing Equations

1.) Karter had $14 in his bank account before putting in his birthday earnings. He now has $98. How much money did he earn at his birthday?	Think- Pair Share On your own: Think about different strategies that you can use to solve this problem! Be ready to share! Try to solve by defining a variable, setting-up an equation, and solving for the variable! Variable :_____ Equation : _____ Solution: _____
2.) Larsen spent $78 on three pairs of sandals for the summer. If each pair of sandals cost the same amount, write an equation that represents this situation and solve to find the cost of one pair of sandals.	Variable :_____ Equation : _____ Solution: _____ Can you think of another strategy to solve?
3.) Pamela earns $18 for vacuuming and dusting her house. She spends $4 on lunch and $9 on a new dress. Write and solve an equation to show how much money Pamela has left.	Variable :_____ Equation : _____ Solution: _____
4.) Thomas had a bag of gumdrops that he divided equally among his four friends. If each friend receives 56 gumdrops, how many gum drops did he start with? ✓	Variable :_____ Equation : _____ Solution: _____
5.) Peter and Raul each purchased new baseball hats for practice. Raul's hat cost 3 times as much as Peter's hat did. Together, they spent $56. How much did each boy spend? x = 14	Variable(s) : Peter = x Raul = 3x Equation : 4x = 56 Solutions: Peter: 14 Raul: 42

HW

Enrichment: One-Step Equations Name: _____

Solve for the variable and use your solution to evaluate the expression.

1. If $y + 8 = 17$, then find the value of $3y + y^2$	2. If $k - 4 = 9$, then find the value of $13k - 2k + 7$	3. If $\frac{1}{4}m = 5$, then find the value of $3(2m - 14)$
4. If $6w = 216$, then find the value of $2w \div 9 + 3w$ $\frac{6w}{6} = \frac{216}{6}$ $w = 36$ $2 \cdot 36 \div 9 + 3 \cdot 36$ $72 \div 9 + 3 \cdot 36$ $8 + 108$ (116)	5. If $5g = 6\frac{2}{3}$, then find the value of $g^2 \div 2$	6. If $f - 0.25 = 6.13$, then find the value of $5(f - 4.9)$

Simplify each side of the equation and then solve for the variable.

7. $5x + 9x = \frac{1}{4}(120 - 8)$	8. $35d - 28d = 8 + 3^{(9-6)}$	9. $c + \frac{3^2 + 6}{24 \div 8} = 92$
10. $6(4 + 2^5) \div 9 = 12t$	11. $g - \frac{1}{6} = \frac{2}{3}\left(\frac{6}{8} - \frac{7}{8}\right)$ $g - \frac{1}{6} = \frac{2}{3} \cdot \frac{-1}{8}$ $g - \frac{1}{6} = -\frac{2}{24}$ $g - \frac{1}{6} = -\frac{1}{12}$ $+\frac{1}{6} \quad +\frac{2}{12}$ $g = \frac{1}{12}$	12. $4h + 6 - 3h = 28 \div 5^0$

one on Quiz like this