

Name: _____



PRACTICE



TUTORIAL

5-2 Additional Practice

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1. Complete the steps to solve the equation $12x - \frac{2}{3} = 83\frac{1}{3}$

$$12x - \frac{2}{3} + \frac{2}{3} = \boxed{} \quad \text{Addition Property of Equality}$$

$$12x = \boxed{}$$

$$\frac{12x}{12} = \boxed{} \quad \text{Division Property of Equality}$$

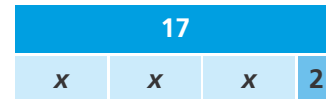
$$x = \boxed{}$$

2. Use the bar diagram to solve the following equation:
 $4d + 5 = 13$



3. Solve for p : $0.6p + 4.5 = 22.5$

4. Solve the equation $3x + 2 = 17$ using the bar diagram.



5. Henry hit 3 more than half as many home runs as Jack hit last season. Henry hit a total of 8 home runs.

a. **Make Sense and Persevere** Write an equation you could use to find the number of home runs, x , that Jack hit last season. © MP.1

b. Solve your equation to find the number of home runs, x , that Jack hit last season.

6. Sarah saved \$12.75 every week for a number of weeks, w . She received an additional \$25 during the last week in which she saved money. Write and solve an equation to find the number of weeks, w , for which Sarah had saved money if she has \$114.25 now.



7. In the year 2000, the number of hazardous waste sites in State X was 8 less than twice the number of hazardous waste sites in State Y. Suppose there were 34 such sites in State X. Write and solve an equation to find the number of hazardous waste sites in State Y, n , in the year 2000.

8. Complete the steps to solve the following equation: $6x + 1.6 = 58$

a. Apply the Subtraction Property of Equality.

b. **Use Structure** Apply the Division Property of Equality. © MP.7

9. a. Write the equation modeled by the bar diagram.



b. Use the bar diagram to help you solve the equation.

10. **Higher Order Thinking** Each of 5 friends has x action figures in his or her collection. Each friend buys 11 more action figures. Now the 5 friends have a total of 120 action figures.

a. Write an equation that models the problem.

b. Solve the equation to find the number of action figures, x , that each friend had originally.

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11. In one month, Jason earns \$32.50 less than twice the amount Kevin earns. Jason earns \$212.50. Write and solve an algebraic equation to show how to find the amount that Kevin earns.

12. What steps do you need to take to solve the equation $\frac{1}{2}x + 6 = 18$?

Ⓐ Add 6. Then multiply by 2.

Ⓑ Subtract 6. Then divide by 2.

Ⓒ Add 6. Then divide by 2.

Ⓓ Subtract 6. Then multiply by 2.

