Name_____ Date _____

2.2 & 2.3 Practice A

Simplify. Write fractions in simplest form.

1. $\dfrac{5}{16} + \left(-\dfrac{7}{16}\right)$

2. $\dfrac{7}{12} - \left(-\dfrac{13}{12}\right)$

3. $-\dfrac{7}{2} + 3\dfrac{2}{3}$

4. $-3\dfrac{1}{2} - 1\dfrac{5}{6}$

5. $-12.41 - (-9.95)$

6. $-8.2 + 5.4$

7. $5.6 + (-1.3)$

8. $2 - 8.25$

9. $7.15 + (-12.76)$

10. Describe and correct the error in finding the sum.

$$\times \quad \dfrac{3}{10} + \left(-\dfrac{1}{10}\right) = \dfrac{3+1}{10} = \dfrac{4}{10} = \dfrac{2}{5}$$

Evaluate the expression when $x = \dfrac{1}{2}$ **and** $y = -\dfrac{2}{5}$.

11. $-x + y$

12. $x + 2y$

13. $|x + y|$

14. Your dog's water bowl is $\dfrac{3}{4}$ full. After taking a drink, the water bowl is $\dfrac{1}{3}$ full. What fraction of the bowl did your dog drink?

15. The temperature is -12.6 degrees Celsius. The temperature goes up 7.9 degrees. What is the new temperature?

16. You finish $\dfrac{3}{8}$ of the project. Your friend finishes $\dfrac{1}{4}$ of the project. What fraction of the project is finished?

17. Mary filled a water cooler with $6\dfrac{1}{2}$ gallons of water. She forgot to close the plug and $2\dfrac{5}{6}$ gallons leaked out.

   a. How many gallons of water remain in the cooler?

   b. She adds $1\dfrac{1}{4}$ gallons. How many gallons of water are now in the cooler?

   c. How many gallons of water must she add to the cooler to get the required $6\dfrac{1}{2}$ gallons?