Lesson 24 • Reducing Fractions, Part 2

Power Up

- ***Facts***
- ***Mental Math***
- ***Problem Solving***

New Concepts

- ***Examples***
- ***Practice Set***

Written Practice

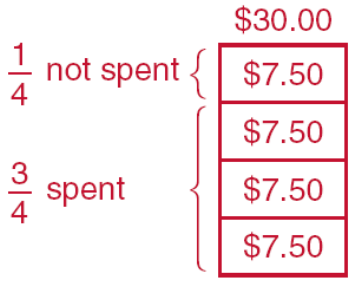
Facts Reduce each fraction to lowest terms.

$\frac{50}{100} = \frac{1}{2}$	$\frac{4}{16} = \frac{1}{4}$	$\frac{6}{8} = \frac{3}{4}$	$\frac{8}{12} = \frac{2}{3}$	$\frac{10}{100} = \frac{1}{10}$
$\frac{8}{16} = \frac{1}{2}$	$\frac{20}{100} = \frac{1}{5}$	$\frac{3}{12} = \frac{1}{4}$	$\frac{60}{100} = \frac{3}{5}$	$\frac{9}{12} = \frac{3}{4}$
$\frac{6}{9} = \frac{2}{3}$	$\frac{90}{100} = \frac{9}{10}$	$\frac{5}{10} = \frac{1}{2}$	$\frac{12}{16} = \frac{3}{4}$	$\frac{25}{100} = \frac{1}{4}$
$\frac{4}{10} = \frac{2}{5}$	$\frac{4}{6} = \frac{2}{3}$	$\frac{75}{100} = \frac{3}{4}$	$\frac{4}{12} = \frac{1}{3}$	$\frac{6}{10} = \frac{3}{5}$

Written Practice

1. 3026 − 2895 = *D*; 131 miles
2. 15 × 24 = *M*; 360 microprocessors
3. a. $\frac{3}{4}$

   b. $22.50



4. a. 18 inches

   b. Sample answer: I know a radius is half the length of a diameter and that one yard equals 36 inches. Therefore the radius is half of 36 inches, or 18 inches.
5. 20 steps

Written Practice *continued*

6. a. 8

b. 24

7. a. $\frac{1}{3}$

b. $\frac{1}{3}$

8. a. $\frac{9}{10}$

b. 60

9. a. acute angle

b. right angle

c. obtuse angle

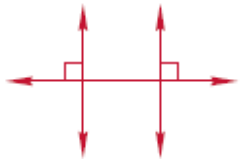
10. a. Equivalent fractions are formed by multiplying or dividing a fraction by a fraction equal to 1. To change from fifths to thirtieths, multiply $\frac{3}{5}$ by $\frac{6}{6}$. $\frac{3}{5} = \frac{18}{30}$

b. Identity Property of Multiplication

11. a. $2^4 \cdot 5^4$

b. $100 = 2^2 \cdot 5^2$

12. a.



b. right angles

Written Practice *continued*

13. a. 9 inches

b. 81 square inches

14. Commutative Property

15. A

16. See student work. Sample: Twelve cans of juice cost \$3.36. What is the cost for each can? The cost for each can is \$3.36 ÷ 12, or \$0.28.

17. $3\frac{1}{2}$

18. $6\frac{1}{2}$

19. 10^3 or 1000

20. -1

Written Practice *continued*

21. $33\frac{1}{3}\%$

22. $3\frac{1}{4}$

23. $\frac{25}{36}$

24. $\frac{1}{3}$

25. heptagon

26. a. 1000

b. -90

c. $\frac{1}{10}$

27. a. 90 yards

b. Sample: To find the missing measure of the bottom of the figure I added the measures of the opposite side 10 + 10 = 20, so the missing measure was 20 yards. To find the missing measure of the top part I subtracted the right side's measure from the left side's measure: 25 − 20 = 5 yards.

28. $\frac{3}{12} + \frac{2}{12} = \frac{5}{12}$

29. ∠DAC and ∠BCA (or ∠CAD and ∠ACB); ∠DCA and ∠BAC (or ∠ACD and ∠CAB)

Written Practice *continued*

30. a. $-1, -\frac{1}{2}, 0, \frac{1}{2}, 1$

b. $1\frac{1}{2}, 2, 2\frac{1}{2}$