# **Lesson 30** • Common Denominators • Adding and Subtracting Fractions with Different Denominators

***Power Up***

– ***Facts***

– ***Mental Math***

– ***Problem Solving***

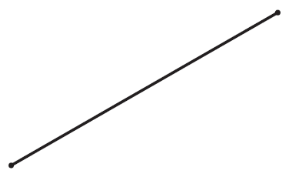
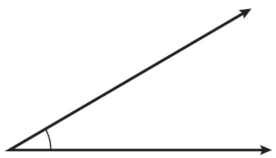
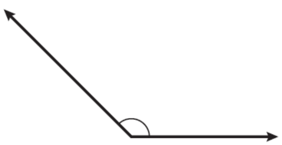
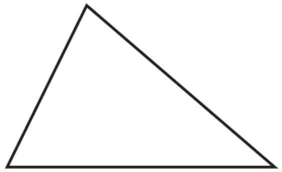
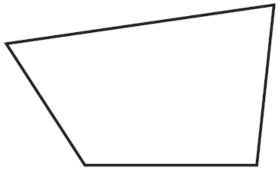
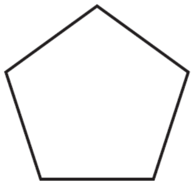
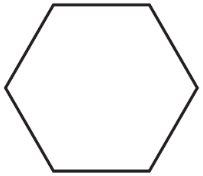
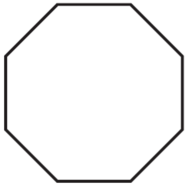
***New Concepts***

– ***Examples***

– ***Practice Set***

***Written Practice***

**Facts** Name each figure illustrated.

| | | | |
|---|---|---|---|
| 1.  segment | 2.  ray | 3.  line | 4.  acute angle |
| 5.  right angle | 6.  obtuse angle | 7.  triangle | 8.  quadrilateral |
| 9.  pentagon | 10.  hexagon | 11.  octagon | 12. A polygon whose sides are equal in length and whose angles are equal in measure is a regular polygon. |

## Written Practice

1. 78 inches

2. \$4.78

3. Her father is correct. By estimating we know the total is closer to 200 pounds than 2000 pounds.

4. $\frac{6}{13}$

5. a. 642 miles

   b. 1498 miles

6. 15 inches

7. $\frac{1}{45}$

8. a. 14,000 ft

   b. 14,500 ft

9. Martin did not enter the problem correctly. Students might estimate 30,000 divided by 50 to find that the correct answer should be near 600.

10. a. $\frac{8}{25}$

    b. $\frac{2}{3}$

11. $\frac{20}{24} < \frac{21}{24}$

## Written Practice *continued*

**12.** a. $9\text{ in.}^2$

b. $16\text{ in.}^2$

c. $25\text{ in.}^2$

**13.** a. 22 in.

b. 6 in.

c. The perimeter of the hexagon is 6 in. less than the combined perimeter of the squares because a 3 in. side of the smaller square and the adjoining 3 in. portion of a side of the larger square are not part of the perimeter of the hexagon.

**14.** a. $2^6 \cdot 3^4$

b. $2^3 \cdot 3^2 = 72$

## Written Practice *continued*

**15.** 16

**16.** 1, 2, 3, 5, 6, 7, 9

**17.** 36

**18.** 60°

**19.** See student work. Answer is $1.25.

**20.**

| Cars Washed | Dollars Earned |
|---|---|
| 1 | 6 |
| 3 | 18 |
| 5 | 30 |
| 10 | 60 |
| 20 | 120 |

**21.** $\frac{5}{6}$

**22.** $\frac{5}{12}$

**23.** $1\frac{1}{3}$

**24.** $1\frac{1}{2}$

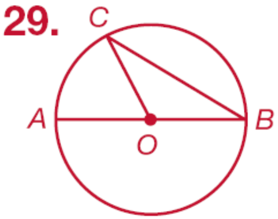
**25.** $\frac{21}{32}$

**26.** $1\frac{3}{5}$

**27.** $6; 5\frac{1}{2}$

**28.** $3; 3\frac{3}{8}$

**29.** See student work. One possibility is shown.

29.


**Written Practice** *continued*

**30.** a. $\overline{AB}$ or $\overline{BA}$

b. $\overline{OA}$, $\overline{OB}$, $\overline{OC}$

c. $\angle BOC$ or $\angle COB$