**ANSWER** **KEY**

**Dividing It Up!** Name: ­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Solve the problems below. Show your strategies and work. Use the approximation 3.14 for π. Round your calculations to the nearest hundredth.

1. *r* = 12 ft (circumference = 12 x 2 x 3.14 = 75.36)

length of minor arc = **18.84 ft** (75.36÷4 )

length of major arc = **56.52 ft** (3/4 of 75.36, or circum – minor arc)

A

B

C

1. *r* = 19 dm

Angle A = 60◦

Area of Circle A = **1133.54 dm2** (area = 19 x 19 x 3.14)

Area of Sector CAB = **188.92 dm2** (area ÷ 6)

P

M

L

1. *d* = 68.4 m (C = 68.4 x 3.14 = 214.78)

Angle P = 120◦ (A = 34.3 x 34.2 x 3.14 = 3672.67)

Length of minor arc = **71.59 m** (214.78 ÷ 3)

Area of sector LPM = **1224.22 m2** (3672.67 ÷ 3)

1. Jack and Anna will sell pizza for a fundraiser. They will sell it based on the area of the slice at $0.20 per square inch. Calculate the area and price of these slices:

a) radius 4 inches, central angle 60◦  **50.24 ÷ 6 = 8.37 $1.67**

b) diameter 12 inches, cut into 8 slices **113.04 ÷ 8 = 14.13 $2.83**

c) diameter 16 inches, central angle 30◦ **200.96 ÷ 12 = 16.75 $3.35**