

$$L = Ph$$

$$SA = L + 2B$$

Geometry

Name Key ID: 1

11.2 Prisms Worksheet

Date 3/15/10 Period

Find the lateral area of each figure. Round your answers to the nearest hundredth, if necessary.

1) $L = Ph$
 $L = (45)12$
 $L = 540 \text{ cm}^2$
(Handwritten notes: $P = 5(9) = 45$)

2) $L = Ph$
 $L = 10(3)$
 $L = 48 \text{ ft}^2$

3) $L = Ph$
 $L = 10(w)$
 $L = 96 \text{ mi}^2$

4) $L = P(h)$
 $L = 18(w)$
 $L = 108 \text{ in}^2$

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

5) $L = 24(12)$
 $L = 288 \text{ m}^2$
 $SA = 288 + 2[(1/2)(5)(9)(4.6)]$
 $SA = 288 + 44.0$
 $SA = 352.4 \text{ m}^2$

6) $SA = 448 + 2[(1/2)(16+6)(5.7)]$
 $448 + 91.2$
 $SA = 539.2 \text{ km}^2$
 $L = 28(10)$
 $L = 448 \text{ km}^2$

7) $L = 24(3)$
 $L = 72 \text{ km}^2$
 $SA = 72 + 2[(1/2)(8)(6)]$
 $SA = 72 + 48$
 $SA = 120 \text{ km}^2$

8) $SA = 180 + 2(11 \cdot 7)$
 $SA = 180 + 154$
 $SA = 334 \text{ yd}^2$
 $L = 36(5)$
 $L = 180 \text{ yd}^2$

9) $P = 25$
 $L = 10(12)$
 $L = 720 \text{ cm}^2$
 $SA = 720 + 2[(1/2)(12.5)(12)]$
 $SA = 720 + 498$
 $SA = 1218 \text{ cm}^2$

10) $SA = 198 + 2(4 \cdot 5)$
 $SA = 198 + 40$
 $SA = 238 \text{ cm}^2$
 $L = 18(11)$
 $L = 198 \text{ cm}^2$

$$L = 2\pi rh$$

$$SA = L + 2B \text{ or}$$

$$SA = L + 2\pi r^2$$

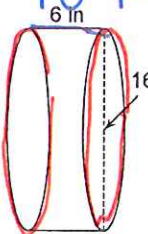
Geometry

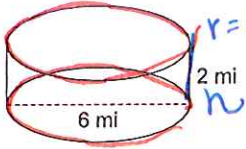
Name Key ID: 1

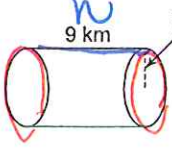
11.2 Cylinders Worksheet

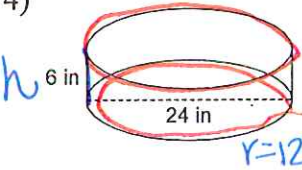
Date 3/10/10 Period

Find the **lateral area** of each figure. Round your answers to the nearest hundredth, if necessary.

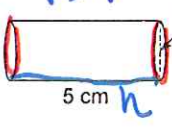
1) $r=8$

 $L = 2\pi \cdot 8 \cdot 16$
 $L = 2\pi \cdot 128$
 $L = 256\pi \text{ in}^2$

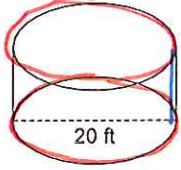
2) $r=3$

 $L = 2\pi \cdot 3 \cdot 4$
 $L = 24\pi$
 $L = 24\pi \text{ mi}^2$

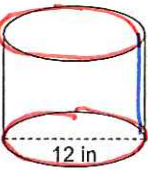
3) $r=3$

 $L = 2\pi \cdot 9 \cdot 3$
 $L = 2\pi \cdot 27$
 $L = 54\pi \text{ km}^2$

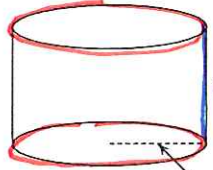
4) $r=12$

 $L = 2\pi \cdot 12 \cdot 6$
 $L = 2\pi \cdot 72$
 $L = 144\pi \text{ in}^2$

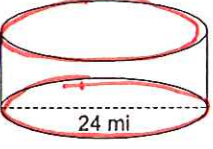
Find the **surface area** of each figure. Round your answers to the nearest hundredth, if necessary.

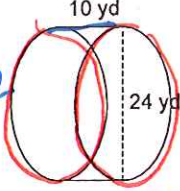
5) $r=1$

 $L = 2\pi rh$
 $L = 2\pi \cdot 1 \cdot 5$
 $L = 10\pi \text{ cm}^2$
 $SA = 10\pi + 2\pi(1)^2$
 $10\pi + 2\pi$
 $SA = 12\pi \text{ cm}^2$

6) $r=10$

 $L = 2\pi(10)(9)$
 $L = 2\pi(90)$
 $L = 180\pi \text{ ft}^2$
 $SA = 180\pi + 2\pi(10)^2$
 $180\pi + 2(100\pi)$
 $180\pi + 200\pi$
 $SA = 380\pi \text{ ft}^2$

7) $r=6$

 $L = 2\pi(6)(9)$
 $L = 2\pi \cdot 54$
 $L = 108\pi \text{ in}^2$
 $SA = 108\pi + 2\pi(6)^2$
 $108\pi + 72\pi$
 $SA = 180\pi \text{ in}^2$

8) $r=5$

 $L = 2\pi \cdot 5 \cdot 6$
 $L = 2\pi(30)$
 $L = 60\pi \text{ m}^2$
 $SA = 60\pi + 2\pi(5)^2$
 $60\pi + 2(25)$
 $60\pi + 50$
 $SA = 110\pi \text{ m}^2$

9) $r=12$

 $SA = 2(12\pi)^2 + 2\pi(12)(9)$
 $2(144\pi) + 208\pi$
 $SA = 504\pi \text{ mi}^2$
 $L = 2\pi \cdot 12 \cdot 9$
 $L = 2\pi \cdot 108$
 $L = 216\pi \text{ mi}^2$

10) $r=12$

 $SA = 2(12)^2 + 2\pi(12)(10)$
 $SA = 240\pi + 288\pi$
 $SA = 528\pi \text{ yd}^2$
 $L = 2\pi \cdot 12 \cdot 10$
 $L = 2\pi \cdot 120$
 $L = 240\pi \text{ yd}^2$