Proficient
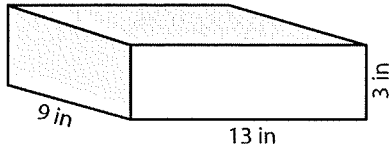
Surface Area - Rectangular Prism

Find the surface area of each rectangular prism.
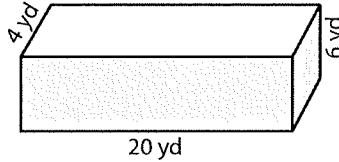
1)

9 in   13 in   3 in
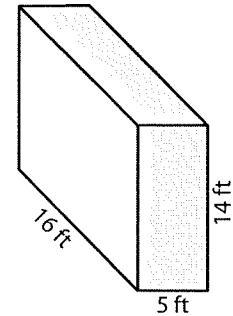
Surface Area = _____

2)

4 yd   20 yd   6 yd

Surface Area = _____

3)

16 ft   14 ft   5 ft

Surface Area = _____

4)

14 yd   17 yd   4 yd

Surface Area = _____

5)

4 ft   19 ft   13 ft

Surface Area = _____

6)

3 in   9 in   14 in

Surface Area = _____

7)

7 ft   12 ft   2 ft
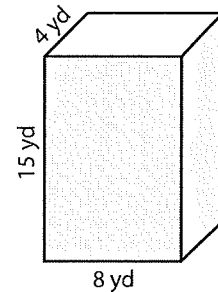
Surface Area = _____

8)

13 in   4 in   6 in

Surface Area = _____

9)

4 yd   15 yd   8 yd
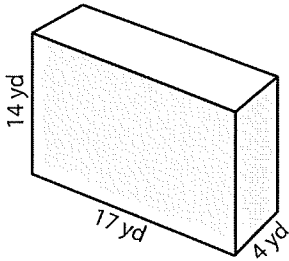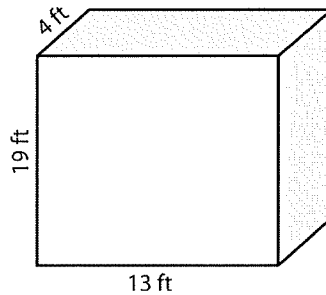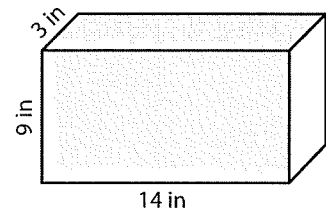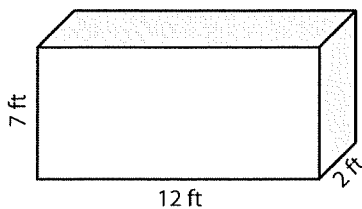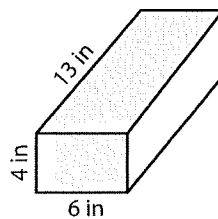
Surface Area = _____

10)   A rectangular-shaped box has the following dimensions: 12 yards, 8 yards, and 18 yards. What is the surface area of the box?
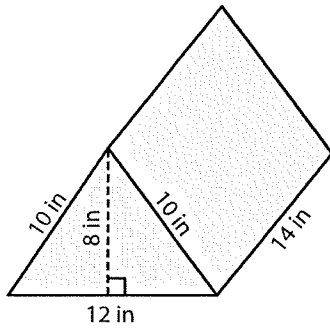
Surface Area = _____

Name : _____

Surface Area of Triangular Prisms

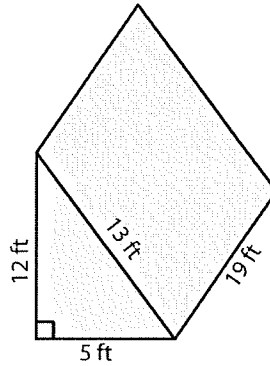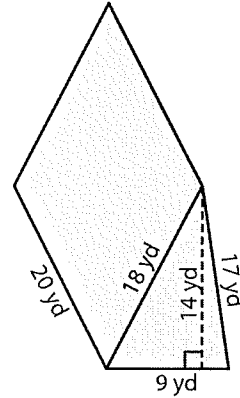Find the surface area of each triangular prism.

1)
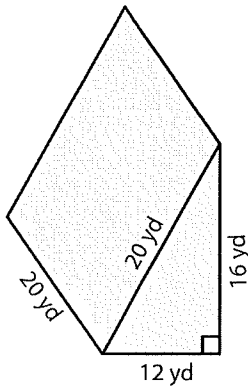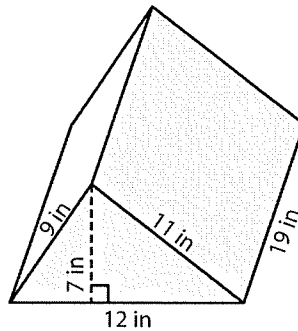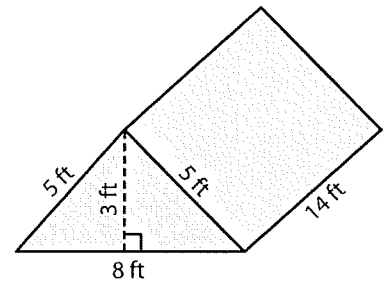
10 in, 8 in, 10 in, 14 in, 12 in

Surface Area = _____

2)

12 ft, 13 ft, 19 ft, 5 ft

Surface Area = _____

3)

20 yd, 18 yd, 14 yd, 17 yd, 9 yd

Surface Area = _____

4)

20 yd, 20 yd, 16 yd, 12 yd

Surface Area = _____

5)

9 in, 7 in, 11 in, 19 in, 12 in

Surface Area = _____

6)

5 ft, 3 ft, 5 ft, 14 ft, 8 ft

Surface Area = _____

7)

10 ft, 3 ft, 2 ft, 4 ft, 6 ft

Surface Area = _____

8)

20 yd, 17 yd, 15 yd, 17 yd, 16 yd

Surface Area = _____

9)

6 in, 10 in, 12 in, 8 in

Surface Area = _____

Surface Area - Cylinder

Find the surface area of each cylinder. (use π = 3.14)

1)

7 in

2 in

Surface Area = _____

2)

13 ft

10 ft

Surface Area = _____

3)

12 yd

6 yd

Surface Area = _____

4)

11 yd

9 yd

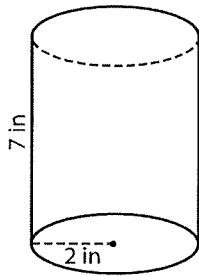Surface Area = _____

5)

10 in

6 in

Surface Area = _____

6)

13 ft

8 ft

Surface Area = _____

7)

15 ft

10 ft

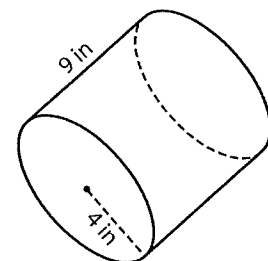Surface Area = _____

8)

15 yd
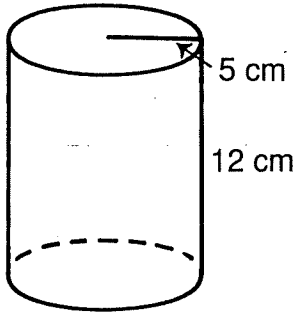
6 yd

Surface Area = _____

9)

9 in

4 in
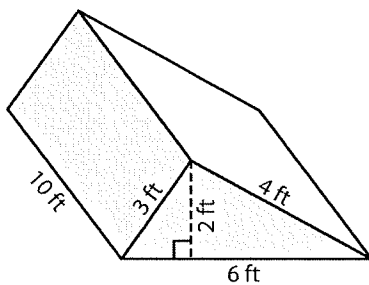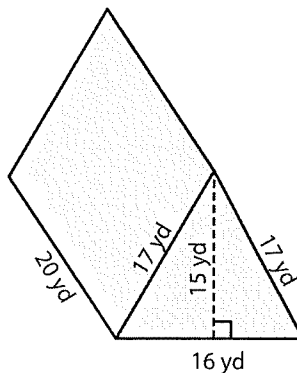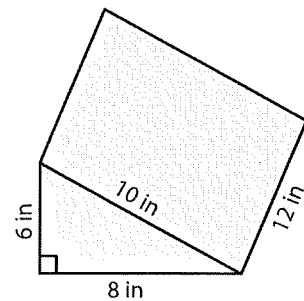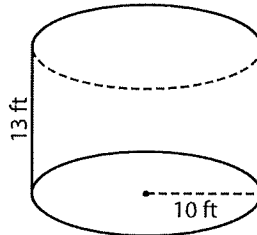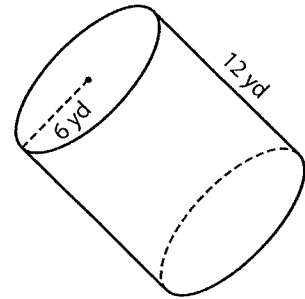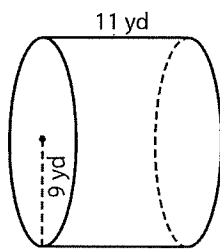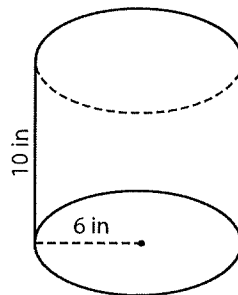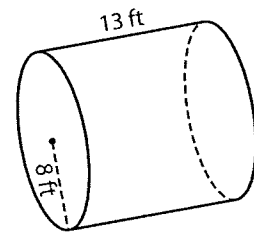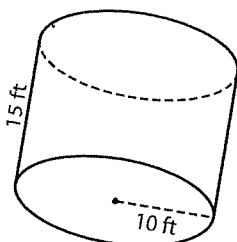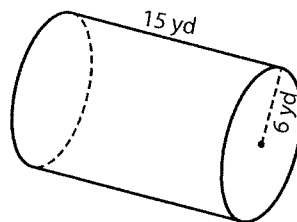
Surface Area = _____
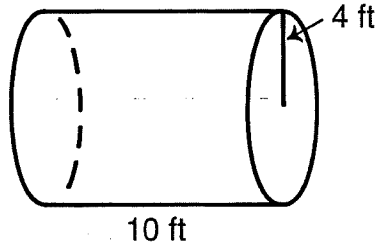
Why Did Humpty Dumpty Have a Great Fall?

Do each exercise and find your answer in the answer column. Write the letter of the answer in each box containing the number of the exercise. Use 3.14 for π.

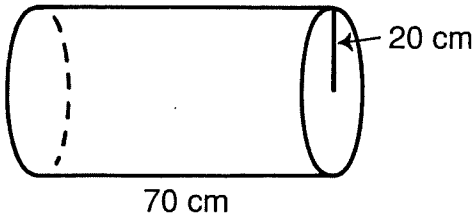I. Find the lateral area and the total surface area of each cylinder.
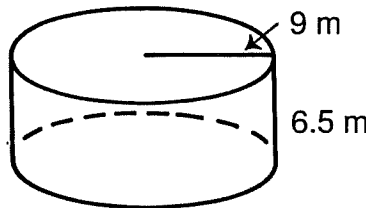

① lateral area: _____

② total area: _____

③ lateral area: _____

④ total area: _____

⑤ lateral area: _____

⑥ total area: _____

⑦ lateral area: _____

⑧ total area: _____

Y	412.18 ft²
R	803.84 in.²
H	792.16 m²
T	251.2 ft²
M	904.32 ft²
L	861.6 cm²
S	367.38 m²
D	376.8 cm²
P	244.92 cm²
C	815.18 ft²
K	11,304 cm²
B	942 cm²
E	351.68 ft²
N	775.14 in.²
U	533.8 cm²
A	271.296 m²
O	876.06 m²
V	12,412 cm²
F	8,792 cm²
I	311.046 m²

II. Find the total surface area of each cylinder.

⑨ $r = 3$ cm
  $h = 10$ cm

⑩ $r = 8$ in.
  $h = 8$ in.

⑪ $d = 10.8$ m
  $h = 2.6$ m

III. Solve.

⑫ A can of tomato juice is a cylinder with a radius of 7.5 cm and a height of 20 cm. What is the area of the label around the can?

⑬ A steel oil tank is a cylinder with a diameter of 12 ft and a height of 18 ft. How many square feet of steel were needed to make the tank?

3	8	13	11	6	4	2	9	5	8	10	11	12	11	1	7	2	13	13	4	10

TOPIC 5-c: Surface Area of Cylinders

D-66

MIDDLE SCHOOL MATH WITH PIZZAZZ! BOOK D
©1989 Creative Publications
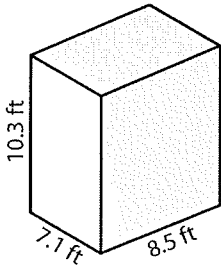
Surface Area - Rectangular Prism
Decimals: S1

Find the surface area of each rectangular prism.
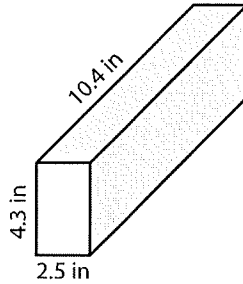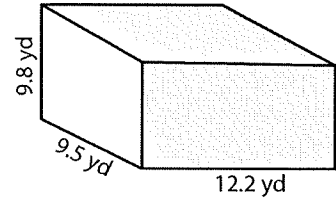
1)

10.3 ft
7.1 ft   8.5 ft

Surface Area = _____

2)

10.4 in
4.3 in
2.5 in

Surface Area = _____

3)

9.8 yd
9.5 yd
12.2 yd

Surface Area = _____

4)

6.5 in
11.5 in   2 in

Surface Area = _____

5)

5.1 yd
12.9 yd
7.2 yd

Surface Area = _____

6)

10.4 ft
7.2 ft
6.5 ft

Surface Area = _____

7)

8.2 yd
10.1 yd   12.4 yd

Surface Area = _____

8)

4.6 ft
7.5 ft   2.5 ft
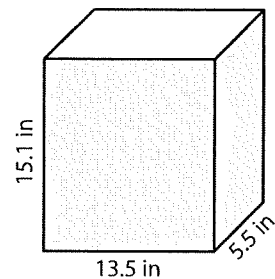
Surface Area = _____

9)

15.1 in
13.5 in   5.5 in
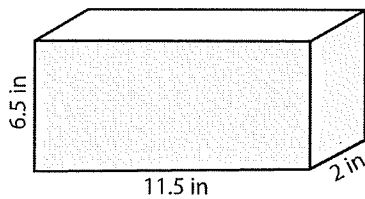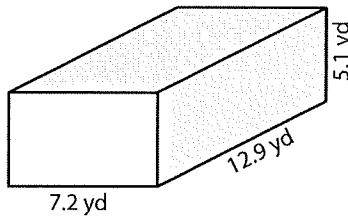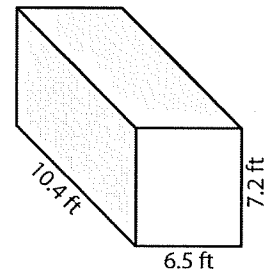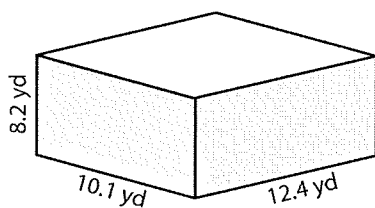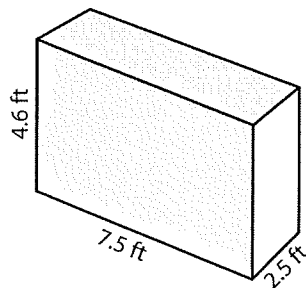
Surface Area = _____

10) The length, width, and height of a wooden box are 12.3 inches, 6.4 inches, and 7.5 inches respectively. Find the surface area of the box.
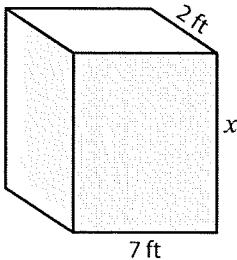
Surface Area = _____

Name : _____

Surface Area - Rectangular Prism

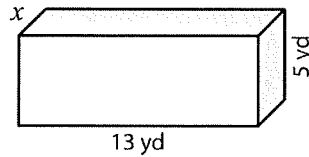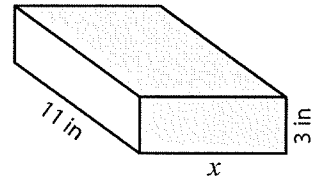Find the value of x.

1) Surface Area = 190 ft²
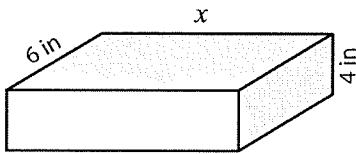

2 ft

x

7 ft

$x =$ _____

2) Surface Area = 202 yd²

x

5 yd

13 yd

$x =$ _____

3) Surface Area = 290 in²

11 in

3 in

x

$x =$ _____

4) Surface Area = 288 in²

x

6 in

4 in

$x =$ _____

5) Surface Area = 532 ft²

8 ft

x

14 ft
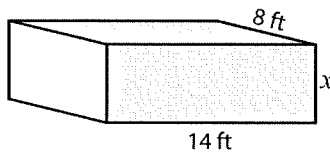
$x =$ _____

6) Surface Area = 760 yd²

x

20 yd

10 yd
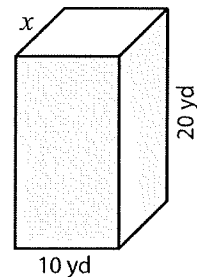
$x =$ _____

7) The length and height of a rectangular prism are 12 feet and 9 feet respectively. Determine the width of the rectangular prism whose surface area is 258 square feet.

_____

8) A rectangular prism is 18 inches height and 15 inches wide. If its surface area is 1,596 square inches, find the length of the prism.
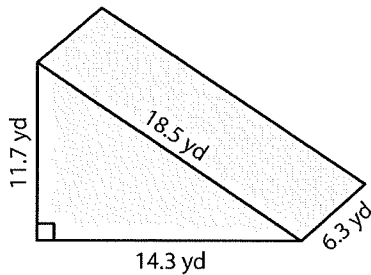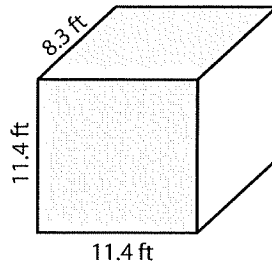
_____

Surface Area of Prisms & Cylinders

Find the surface area of each shape. Round your answer to two decimal places.
(use π = 3.14)

1)

11.7 yd

18.5 yd
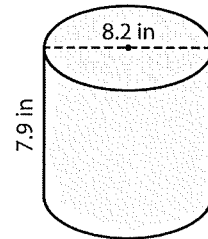
6.3 yd

14.3 yd

Surface Area = _____

2)

8.3 ft

11.4 ft

11.4 ft

Surface Area = _____

3)

8.2 in

7.9 in

Surface Area = _____

4)

10.1 in

6.8 in   6.8 in

6.7 in

2.7 in

Surface Area = _____

5)

9.6 ft

13.8 ft

9.4 ft

10.2 ft

Surface Area = _____

6)

3.4 yd

9.7 yd

12 yd

Surface Area = _____

7)

4.7 yd

9.3 yd

Surface Area = _____

8)

13.1 in

5.4 in

6.7 in

Surface Area = _____

9)

4.2 ft

8 ft

14.5 ft

Surface Area = _____
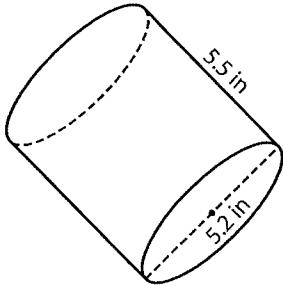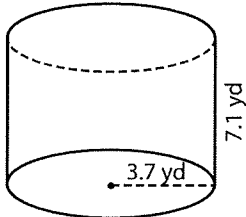
Surface Area - Cylinder

Find the surface area of each cylinder. Round your answer to two decimal places.
(use π = 3.14)

1)

5.5 in
5.2 in
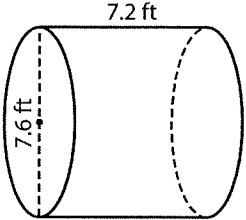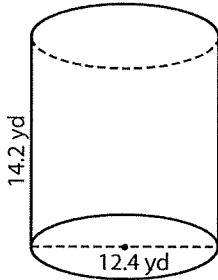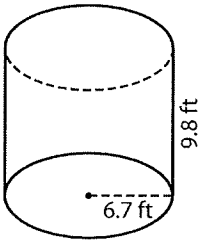
Surface Area = _____

2)

7.1 yd
3.7 yd

Surface Area = _____

3)

7.2 ft
7.6 ft

Surface Area = _____

4)

14.2 yd
12.4 yd

Surface Area = _____

5)

9.8 ft
6.7 ft

Surface Area = _____

6)

4.3 in
8.6 in

Surface Area = _____

7)

10.3 in
2.2 in

Surface Area = _____

8)

11.3 ft
7.8 ft

Surface Area = _____

9)

8.4 yd
9.4 yd

Surface Area = _____