Name _____ Date _____ Class _____

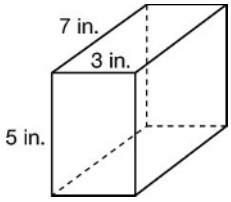
LESSON 9-4

Solving Surface Area Problems

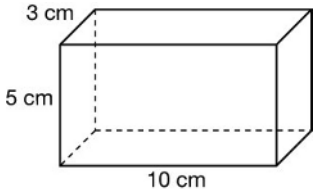
Practice and Problem Solving: A/B

Find the surface area of each solid figure.

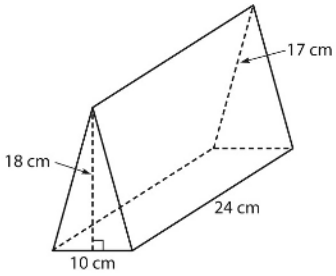
1. _____



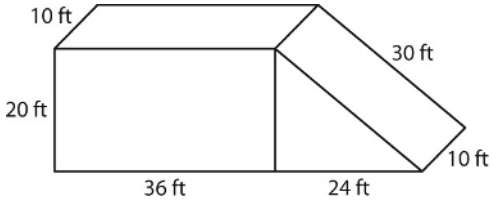
2. _____



3. _____

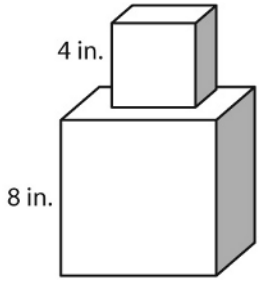


4. _____



Use the situation below to complete Exercises 5–6.

Cydney built a display stand out of two cubes. The larger cube is 8 inches on each side. The smaller cube is 4 inches on each side. She painted the display stand <u>after</u> she put the two cubes together. She did NOT paint the bottom of the display stand. What was the total area she painted?



5. Explain your plan for solving the problem.

_____

_____

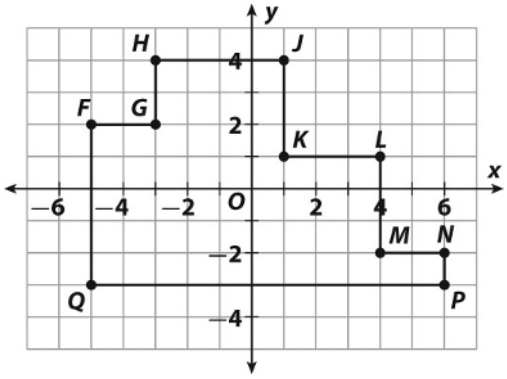
6. Solve the problem.

_____

Practice and Problem Solving: C

Answers may vary for Exercises 1 and 2.

1. 22 ft^2
2. 30 ft^2
3. 104 ft^2
4. 223.4m^2
5. 60.75 m^2
6. 258.39 m^2
7. $A = 52$ units^2; $P = 36$ units



Practice and Problem Solving: D

1. C
2. B
3. 17 ft^2
4. 30.28 m^2
5. 174 ft^2
6. 84 m^2
7. 158.13 ft^2
8. 288 m^2
9. 189.25 ft^2

Reteach

1. 9, $1\frac{1}{2}$, $\frac{1}{2}$, 1, 9, $1\frac{1}{2}$, $\frac{1}{2}$, 1, 12
2. 32, 6, 32, 6, 38

Reading Strategies

1. 63 m^2
2. 76 m^2
3. 30.28 m^2

Success for English Learners

1. Separate the figures into simpler figures whose areas you can find.

LESSON 9-4

Practice and Problem Solving: A/B

1. 142 in^2
2. 190 cm^2
3. 1,236 cm^2
4. 3,380 ft^2
5. Possible answer: I would find the total surface area of each cube and then subtract the area of the sides that are not painted, including the square underneath the small cube.
6. 384 in^2

Practice and Problem Solving: C

1. 101.4 in^2
2. 797.4 m^2
3. Check students' guesses.
4. B; 384 in^2
5. C; 340 in^2
6. A; 338.8 in^2
7. Discuss students' guesses and whether they were correct or not.

Practice and Problem Solving: D

1. 286 ft^2
2. 1,160 ft^2
3. 80 in^2
4. 124 in^2
5. 96 in^2
6. 384 in^2
7. 480 in^2