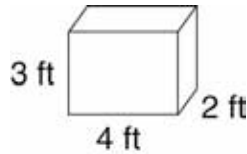| LESSON	**Practice A**
10-7	*Volume of Prisms*

Find the volume of each rectangular prism.

1.

s = 3 in.

_____

2.

3 ft   2 ft   4 ft

_____

3.

8 yd   10 yd   12 yd

_____

4.

7 m   5 m   6 m

_____

5.

s = 5 cm

_____

6.

15 yd   6 yd   6 yd

_____
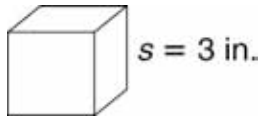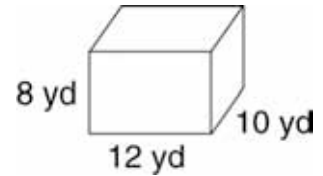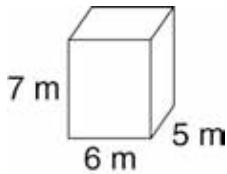
Find the volume of each triangular prism.

7.

6 cm   5 cm   4 cm

_____

8.

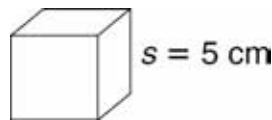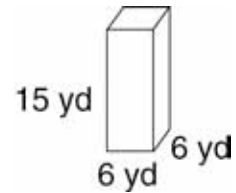9 in.   3 in.   2 in.

_____

9.
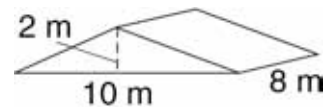

2 m   10 m   8 m

_____
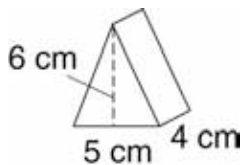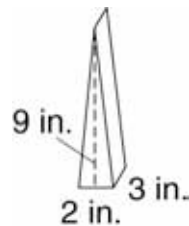
10. A triangular prism and a rectangular prism have the same lengths, heights, and widths. Which prism has the greater volume?

_____

11. Tim made a toy chest for his little sister's square building blocks. If 6 layers of blocks can fit in the box, and each layer has 15 blocks, how many building blocks can the toy chest hold in all?

_____

4. 6 rectangles

5. Yes, It is a triangular pyramid.

6. Yes, A pyramid always has the same number of faces and vertices.

7. A   8. J

9. A   10. J

Reading Strategies

1. faces

2. triangles

3. polygons

4. one; two

Puzzles, Twisters & Teasers

LESSON 10-7

Practice A

1. $V = 27$ in^3 2. $V = 24$ ft^3

3. $V = 960$ yd^3 4. $V = 210$ m^3

5. $V = 125$ cm^3 6. $V = 540$ yd^3

7. $V = 60$ cm^3 8. $V = 27$ in^3

9. $V = 80$ m^3

10. the rectangular prism

11. 90 building blocks

Practice B

1. 857.375 in^3 2. 1,800 ft^3

2. 6,800 yd^3 4. 231.556 m^3

5. 980 yd^3 6. 3,511.808 cm^3

7. 910 cm^3 8. 73.5 ft^3

9. 22,500 in^3 10. 15 ft^3

11. 144 cubic inches of wood

Practice C

1. $274\dfrac{5}{8}$ in^3 2. 0.48 m^3

3. $98\dfrac{9}{32}$ ft^3 4. 1,137.4425 cm^3

5. $17\dfrac{119}{128}$ ft^3 6. 0.02275 m^3

7. 2 m   8. 9.5 ft

9. 12 yd   10. 10 in.

11. 1,600 ft^3 12. 42 ft^3

Review for Mastery

1. 16 square units   2. 30 square units

3. 16 square units   4. 15 square units

Challenge

5,760 in^3; about 25; koi goldfish

2,970 in^3; about 13; clown loach

1,170 in^3; about 5; redtail shark

1,600 in^3; about 7; angelfish

Problem Solving

1. about 586,491,840 ft^3 of concrete

2. about 1,110.375 ft^3 of black granite

3. 1.56 cm^3 of benitoite

4. 9.375 in^3 of bronze

5. D   6. H

7. B   8. J

Reading Strategies

1. 4 cubes   2. 3 cubes

3. 12 cubes   4. 4 cubes

5. 3 cubes   6. 12 cubes

7. 24 cubes   8. 24 cubic units