

12.2 Puzzle Time

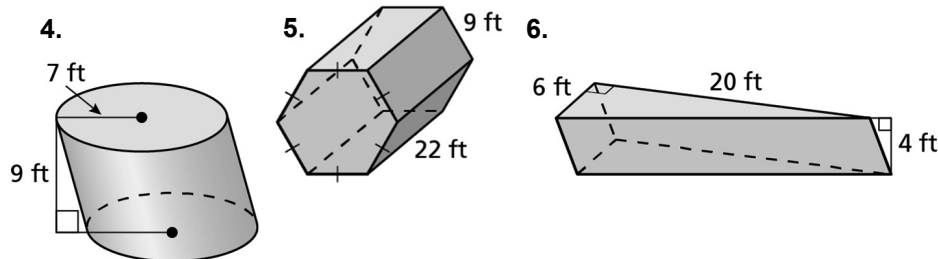
What Starts With A “P,” Ends With An “E,” And Has One Million Letters In It?

Write the letter of each answer in the box containing the exercise number.

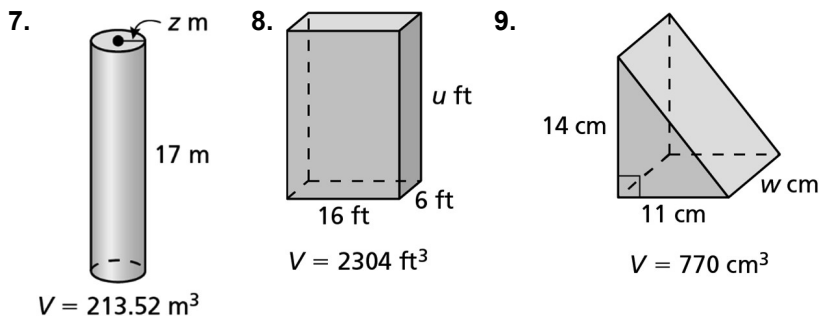
Complete the sentence.

- The _____ of a solid is the number of cubic units contained in its interior.
- _____ Principle states that if two solids have the same height and the same cross-sectional area at every level, then they have the same volume.
- Two solids of the same type with equal ratios of corresponding linear measures are called _____ solids.

Find the volume in square feet of the figure. Round your answer to the nearest hundredth.



Find the value of the variable.



- A prism has a base area of 23 square centimeters and a volume of 138 cubic centimeters. Find the height of the prism.

4	6	8	3		5	9	2	10	7	1
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Answers

- E. volume
- I. 6
- J. congruent
- O. 4629.77
- P. Shepherd’s
- Q. 16
- S. 24
- T. 5
- F. Cavalieri’s
- C. 2
- D. mass
- E. 1440
- F. 15
- O. 240
- P. 1385.44
- T. similar
- U. 2202.5
- F. 10
- G. 2315.82
- P. 1384.74

12.3 Puzzle Time

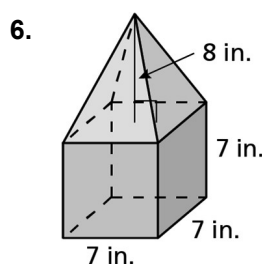
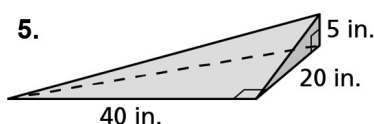
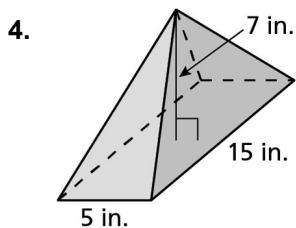
What Do You Get When It Rains On Your Convertible?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Round your answer to nearest tenth.

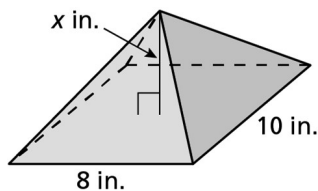
1. A pyramid with a square base has a volume of 60 cubic meters and a height of 2 meters. Find the side length (in meters) of the base.
2. A pyramid with a rectangular base has a volume of 180 cubic inches and a height of 4 inches. The width of the base is 6 inches. Find the length (in inches) of the base.
3. The side lengths of the bases and length of the heights of two similar square pyramids, pyramid A and pyramid B, have a scale factor k of $\frac{1}{2}$. The smaller pyramid (pyramid A) has a height of 3 units and a volume of 100 cubic units. Find the volume (in cubic units) of pyramid B.

Find the volume (in cubic inches) of the figure. Round your answer to nearest tenth.

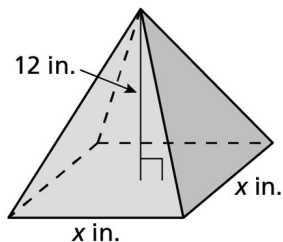


Find the value of the variable. Round your answer to nearest tenth.

7. Volume = 120 in.^3



8. Volume = 600 in.^3



A	W	E	C	B	A	T	M
22.5	489.3	30.5	800	130.7	473.7	15	24.4
S	R	P	A	O	M	O	L
4	4.5	175	5.5	9.5	200	12.2	666.7