

9. The diagonal of a square is 48 centimeters. What is the length of a side of the square?

**A**  $24\sqrt{2}$  cm  
**B**  $48\sqrt{2}$  cm  
**C** 24 cm  
**D**  $12\sqrt{2}$  cm

10. Which of the following can be used as a counterexample to disprove  $n \leq n^3$ ?

**F**  $n = -1$   
**G**  $n = 2$   
**H**  $n = 1.1$   
**J**  $n = 0.1$

11. The radius of a cone is doubled to create a new cone. The height stayed the same. How will the volume of the new cone compare to the volume of the original cone?

**A** The volume of the new cone will be twice as large as the volume of the original cone.  
**B** The volume of the new cone will be four times as large as the volume of the original cone.  
**C** The volume of the new cone will be 2 cubic units larger than the volume of the original cone.  
**D** The volume of the new cone will be eight times as large as the volume of the original cone.

12. If the measure of an exterior angle of a regular polygon is  $20^\circ$ , how many sides does the polygon have?

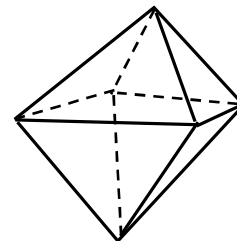
**F** 10  
**G** 18  
**H** 12  
**J** 9

13. A segment has endpoints with coordinates  $(3, -7)$  and  $(-3, 5)$ . What is the slope of the line that contains this segment?

Record your answer on the grid. Be sure to use the correct place value.

$\oplus$	$\ominus$	$\ominus$	$\ominus$	$\ominus$	$\ominus$	$\ominus$	$\ominus$
$\ominus$	0	0	0	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

14. How many vertices and edges does the polyhedron have?



**F** 12 edges and 5 vertices  
**G** 8 edges and 6 vertices  
**H** 12 edges and 6 vertices  
**J** 12 edges and 8 vertices