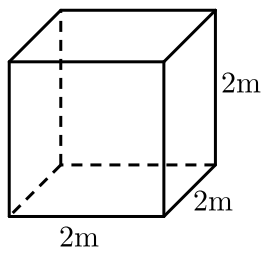
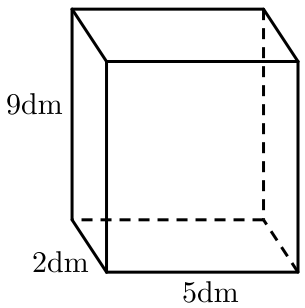
DAY4: Surface Area, Volume, Coordinate Plane

Self-Checking

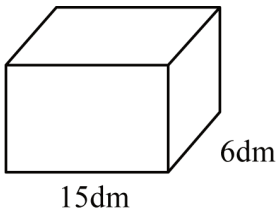
1. The surface areas of the cube and the cuboid below are _____ m^2 and _____ dm^2, respectively.





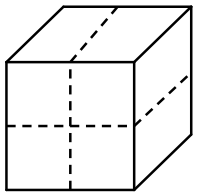
A. 8, 90 B. 24, 146 C. 24, 73 D. 24, 90

2. A shop has a fish tank in stock. A customer asks about the size of this fish tank. Unfortunately, the description tag only shows the length and the width of the fish tank as the picture shows below. The size of the height is stained. But the staff knows that this fish tank can hold 720 dm^3 of water at most. Can you find the height of the fish tank? (Ignore the thickness of the fish tank.)



A. $8dm$ B. $10dm$ C. $12dm$ D. $14dm$

3. As the picture shows below, the cube with an edge length of 9 dm is cut into four cuboids. The total surface area of the four cuboids is _____ dm^2.



A. 486 B. 648 C. 729 D. 810

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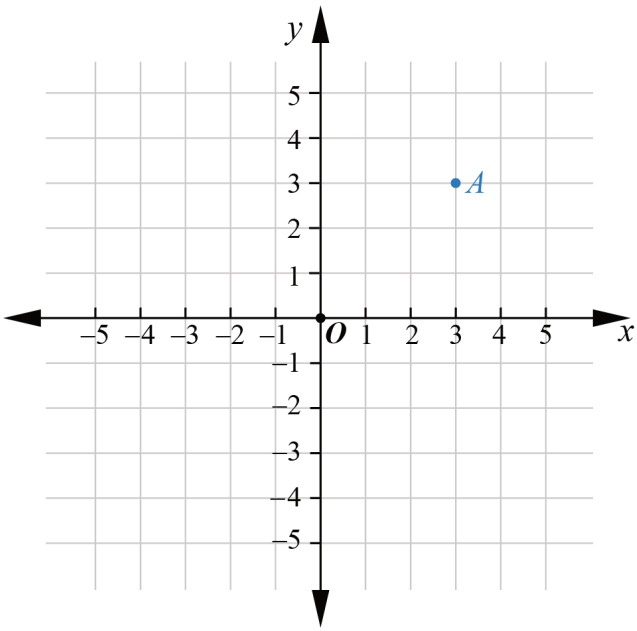
4 Find the coordinates of point A.



A. $(3, 3)$ B. $(-3, 3)$ C. $(-3, -3)$ D. $(3, -3)$

5 What would be the result if a point $(2, 4)$ is reflected across the y-axis four times?

A. $(2, 4)$ B. $(-2, 4)$ C. $(2, -4)$ D. $(-2, -4)$

6 Tom plotted points $A(1, 2)$, $B(6, 2)$, $C(6, 5)$, $D(1, 5)$ on a coordinate grid. If a polygon is formed by connecting sides AB, BC, CD, DA, which type of polygon is formed ?

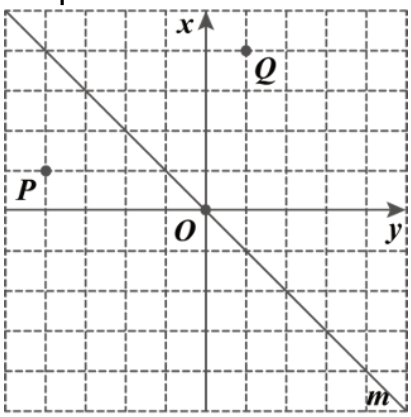
A. Rectangle B. Rhombus C. Square D. Trapezoid

Bonus Tests

7 In a handicraft workshop, Ashley makes a cube with clay. The cube has an edge length of 4 cm. Then, she changes the cube into a cuboid with a length of 8 cm and a width of 4 cm. The surface area of the cuboid is _____ cm^2 larger than the surface area of the original cube.

A. 4 B. 8 C. 12 D. 16

8 Use the grid below to answer the question.



Which line or pair of lines could point P be folded over in order to end up exactly where point Q is ?

A. Line m only B. Line x only C. Line m and line x D. Line x and line y