



The radius of the base of a cylinder is increasing at a rate of 1 meter per hour and the height of the cylinder is decreasing at a rate of 4 meters per hour.

At a certain instant, the base radius is 5 meters and the height is 8 meters.

What is the rate of change of the volume of the cylinder at that instant (in cubic meters per hour)?

Choose 1 answer:

(A) 180π

(B) 20π

(C) -20π

(D) -180π

Amro

The side of the base of a square prism is increasing at a rate of 5 meters per second and the height of the prism is decreasing at a rate of 2 meters per second.

At a certain instant, the base's side is 6 meters and the height is 7 meters.

What is the rate of change of the volume of the prism at that instant (in cubic meters per second)?

Choose 1 answer:

(A) -348

(B) 492

(C) 348

(D) -492

The volume of a square prism with base side s and height h is s^2h .