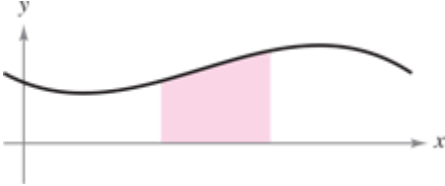


1) (A) Find the area of the rectangle?



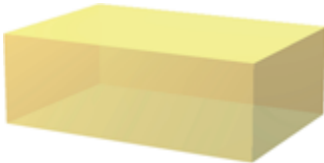
(B) Find the area under the curve?



(C) Find the volume of the region under the surface?



(D) Find the volume of the rectangular solid?



Which problem is a **CALCULUS** problem?

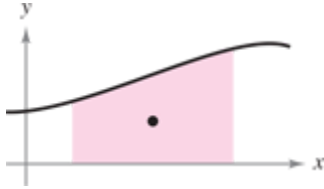
Choose all that apply:

- A. Problem A
- B. Problem B
- C. Problem C
- D. Problem D

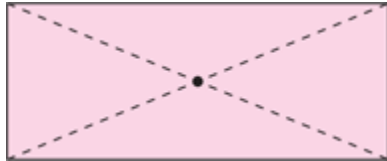
2) (A) What is the length of the arc?



(B) What is the centroid of the region?



(C) What is the center of the rectangular region?



(D) What is the length of the line segment?



Which problem is a **CALCULUS** problem?

Choose all that apply:

- A. Problem A
- B. Problem B
- C. Problem C
- D. Problem D

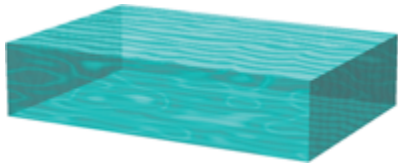
3) (A) What is the work done by the constant force?



(B) What is the mass of a constant density?



(C) What is the mass of a variable density?



(D) What is the work done by the constant force?



Which problem is a **CALCULUS** problem?

Choose all that apply:

- A. Problem A
- B. Problem B
- C. Problem C
- D. Problem D

4) (A) Find the finite sum  $a_1 + a_2 + \cdots + a_n$ ?

(B) Find the infinite sum  $a_1 + a_2 + a_3 + \cdots$ ?

Which problem is a **CALCULUS** problem?

Choose all that apply:

- A. Problem A
- B. Problem B

Key:

1. C, B
2. A, B
3. C, D
4. B