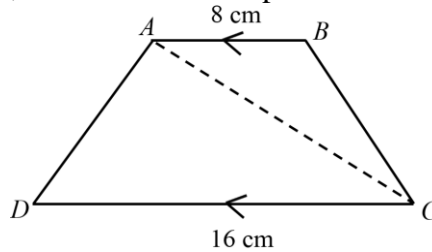


TB(1B) Ch. 9 Areas and Volumes (I)

Multiple Choice Questions

1. [16-17 Mid-year Exam, #9]

If the area of $\triangle ABC$ is 40 cm^2 , find the area of trapezium $ABCD$.

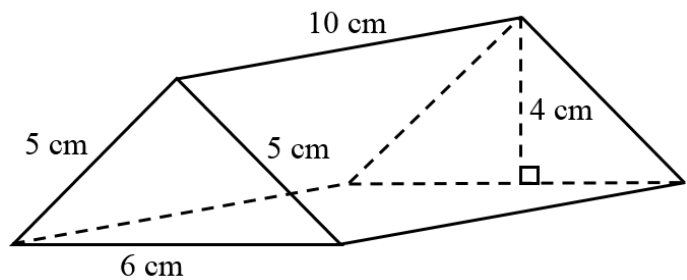


- A. 60 cm^2
- B. 120 cm^2
- C. 160 cm^2
- D. 240 cm^2

2. [16-17 Mid-year Exam, #10]

The figure shows a triangular prism. Find its volume.

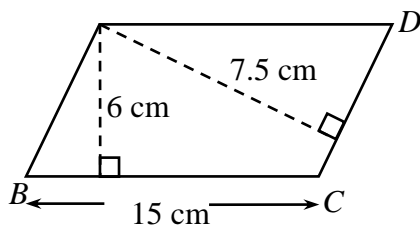
- A. 120 cm^3
- B. 125 cm^3
- C. 240 cm^3
- D. 250 cm^3



3. [16-17 Mid-year Exam, #20]

In the figure, $ABCD$ is a parallelogram.

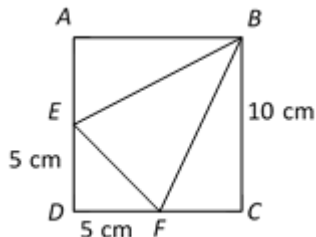
Find the perimeter of $ABCD$.



- | | |
|----------|----------|
| A. 12 cm | B. 27 cm |
| C. 54 cm | D. 90 cm |

4. [16-17 Final Exam, #6]

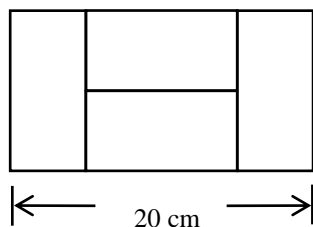
The figure shows a square $ABCD$ of side 10 cm. If $ED = 5$ cm and $DF = 5$ cm, find the area of $\triangle BEF$.



- A. 37.5 cm^2
- B. 62.5 cm^2
- C. 87.5 cm^2
- D. 100 cm^2

5. [16-17 Final Exam, #14]

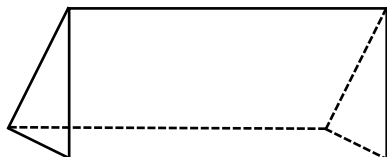
Peter uses four pieces of identical rectangular wood to make a bigger rectangle as shown in the figure. Find the area of a piece of wood.



- A. 20 cm^2
- B. 50 cm^2
- C. 100 cm^2
- D. 200 cm^2

6. [17-18 Mid-year Exam, #19]

The figure shows a triangular prism. Which of the following statements are correct?

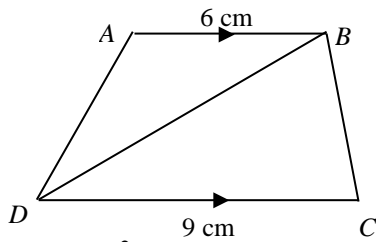


- I. The prism has 5 faces, 6 vertices and 9 edges.
- II. The prism has uniform cross-section.
- III. The prism is not enclosed by polygons only.

- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III

7. [17-18 Standardized Test 2 Q3]

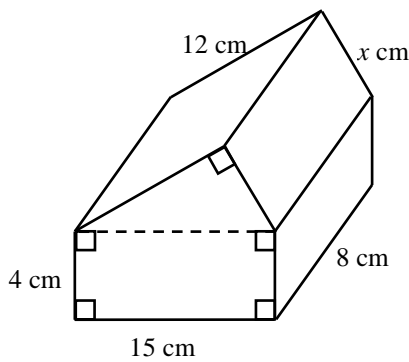
In the figure, the area of trapezium $ABCD$ is 120 cm^2 . The area of $\triangle BCD$ is



- A. 144 cm^2 .
- B. 72 cm^2 .
- C. 48 cm^2 .
- D. 36 cm^2 .

8. [17-18 Standardized Test 2 Q7]

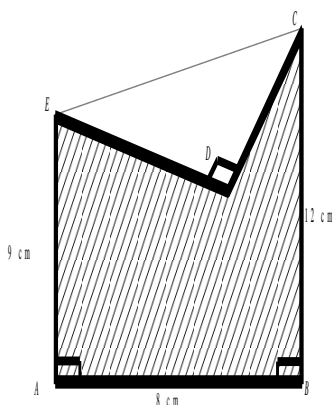
In the figure, the volume of the prism is 912 cm^3 . Find the total area of all lateral faces of the prism.



- A. 316 cm^2
- B. 352 cm^2
- C. 490 cm^2
- D. 580 cm^2

9. [17-18 Final Exam Q15]

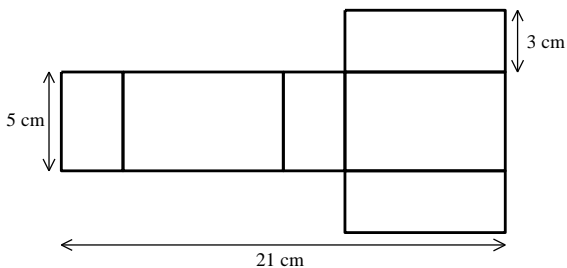
In the figure, if $CD = DE$ and the perimeter of the pentagon $ABCDE$ is 41 cm , the area of the shaded region is



- A. 48 cm^2 .
- B. 66 cm^2 .
- C. 132 cm^2 .
- D. 218 cm^2 .

10. [17-18 Final Exam Q17]

The figure shows the net of a cuboid. If it is folded, the volume of the cuboid is

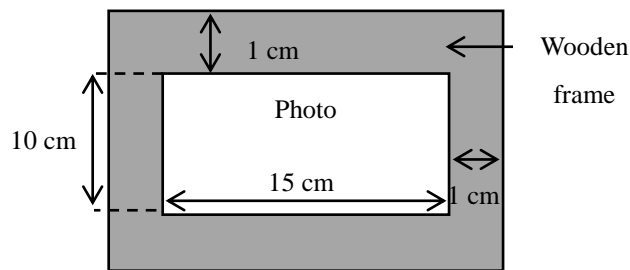


- A. 82.5 cm^3 .
- B. 112.5 cm^3 .
- C. 225 cm^3 .
- D. 315 cm^3 .

11. [18-19 Standardized Test 2 Q1]

In the figure, a rectangular photo is of size $15 \text{ cm} \times 10 \text{ cm}$. The photo is exactly fitted into a wooden frame of uniform width 1 cm. Find the area of the wooden frame.

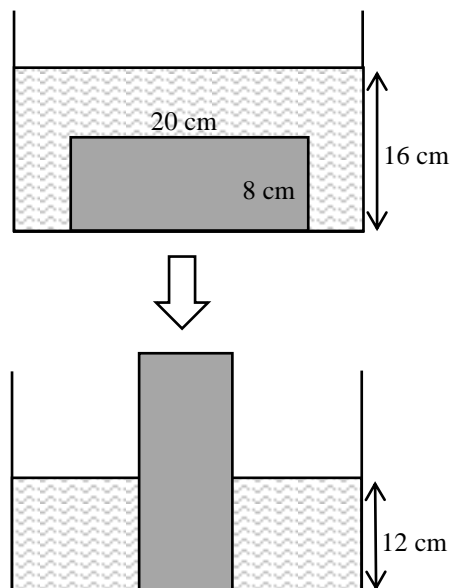
- A. 26 cm^2
- B. 37 cm^2
- C. 46 cm^2
- D. 54 cm^2



12. [18-19 Standardized Test 2 Q6]

In the figure, there is a rectangular tank filled with some water. When a cuboid of dimensions $8 \text{ cm} \times 8 \text{ cm} \times 20 \text{ cm}$ is fully immersed in the water, the water depth is 16 cm. When the cuboid stands on its square base, the water depth falls to 12 cm. Find the base area of the tank.

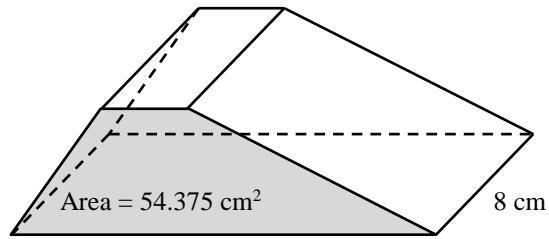
- A. 128 cm^2
- B. 144 cm^2
- C. 160 cm^2
- D. 512 cm^2



13. [18-19 Final Exam Q8]

The figure shows a trapezoidal prism with height 8 cm. The perimeter and area of the trapezium are 41 cm and 54.375 cm^2 respectively. Which of the following is the total surface area of the prism?

- A. 328 cm^2
- B. 328.375 cm^2
- C. 435 cm^2
- D. 436.75 cm^2

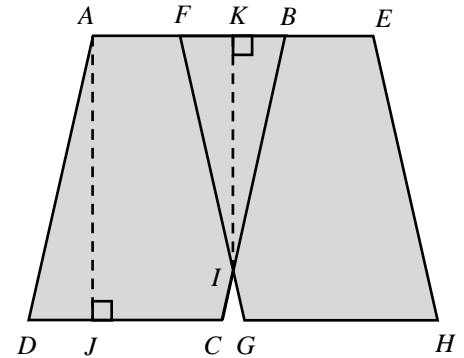


14. [18-19 Final Exam Q20]

In the figure, parallelogram $ABCD$ is congruent to parallelogram $EFGH$. It is given that $AFKBE$ and DJC are straight lines, BC intersects FG at I , $AJ \perp DC$ and $IK \perp AE$. If $AK = KE = 6 \text{ cm}$, $DC = 8 \text{ cm}$, $IK = 8 \text{ cm}$ and $AJ = 12 \text{ cm}$. Which of the following statements are true?

- I. $KB = 2 \text{ cm}$
- II. $DJ = 2.8 \text{ cm}$
- III. The area of $AEHGICD$ is 176 cm^2 .

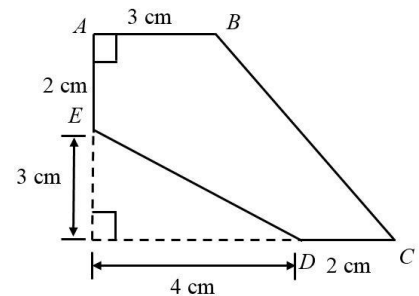
- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III



15. [20-21 Final Exam Q8]

In the figure, find the area of the pentagon $ABCDE$.

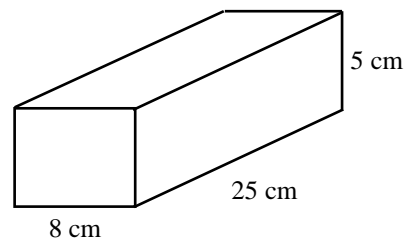
- A. 33 cm^2
- B. 16.5 cm^2
- C. 10.5 cm^2
- D. 6.5 cm^2



16. [20-21 Final Exam Q18]

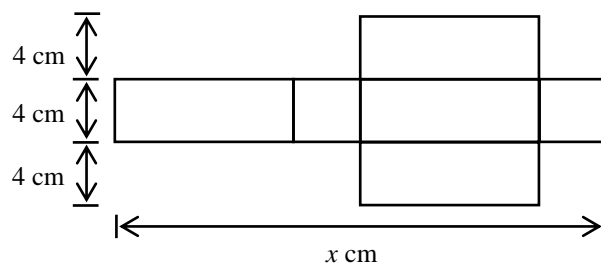
A cube is melted and recast to the solid metal cuboid as shown below. Find the percentage change in the total surface area.

- A. 17.8%
- B. 21.7%
- C. -17.8%
- D. -21.7%

**17. [20-21 Final Exam Q19]**

The figure shows the net of a prism with a square base. If it is folded, the volume of the prism is 144 cm^3 . Find the value of x .

- A. 13
- B. 24
- C. 26
- D. 48



~ End ~