

SAT Math

Area and Volume 1

Question # ID**1.1** 5252e606

The side length of a square is 55 centimeters (cm). What is the area, in cm^2 , of the square?

- A. 110
- B. 220
- C. 3,025
- D. 12,100

1.2 59cb654c

The area of a square is 64 square inches. What is the side length, in inches, of this square?

- A. 8
- B. 16
- C. 64
- D. 128

1.3 0837c3b9

Triangle ABC and triangle DEF are similar triangles, where \overline{AB} and \overline{DE} are corresponding sides. If $DE = 2AB$ and the perimeter of triangle ABC is 20, what is the perimeter of triangle DEF?

- A. 10
- B. 40
- C. 80
- D. 120

1.4 c88183f7

A rectangle has a length of 13 and a width of 6. What is the perimeter of the rectangle?

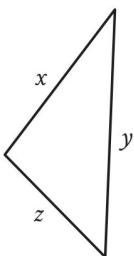
- A. 12
- B. 26
- C. 38
- D. 52

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1.5 29e9b28c



Note: Figure not drawn to scale.

The triangle shown has a perimeter of 22 units. If $x = 9$ units and $y = 7$ units, what is the value of z , in units?

- A. 6
- B. 7
- C. 9
- D. 16

1.6 3453aafc

What is the area, in square centimeters, of a rectangle with a length of 36 centimeters and a width of 34 centimeters?

- A. 70
- B. 140
- C. 1,156
- D. 1,224

1.7 f60bb551

The area of a rectangle is 630 square inches. The length of the rectangle is 70 inches. What is the width, in inches, of this rectangle?

- A. 9
- B. 70
- C. 315
- D. 560

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1.8 4420e500

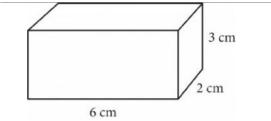
What is the area of a rectangle with a length of 4 centimeters (cm) and a width of 2 cm?

- A. 6 cm^2
- B. 8 cm^2
- C. 12 cm^2
- D. 36 cm^2

1.9 165c30c4

A rectangle has a length of 64 inches and a width of 32 inches. What is the area, in square inches, of the rectangle?

1.10 d683a9cc



The figure shows the lengths, in centimeters (cm), of the edges of a right rectangular prism. The volume V of a right rectangular prism is ℓwh , where ℓ is the length of the prism, w is the width of the prism, and h is the height of the prism. What is the volume, in cubic centimeters, of the prism?

- A. 36
- B. 24
- C. 12
- D. 11

1.11 f39f88b7

A triangle has a base length of 40 centimeters and a height of 90 centimeters. What is the area, in square centimeters, of the triangle?

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1.12 93f48423

What is the area, in square inches, of a rectangle with a length of 7 inches and a width of 6 inches?

- A. 13
- B. 20
- C. 42
- D. 84

1.13 d2047497

What is the area of a rectangle with a length of 17 centimeters (cm) and a width of 7 cm?

- A. 24 cm^2
- B. 48 cm^2
- C. 119 cm^2
- D. 576 cm^2

1.14 a490003a

The width of a rectangle is 7 centimeters. The length of the rectangle is 40 centimeters longer than the width. What is the area, in square centimeters, of this rectangle?

- A. 7
- B. 14
- C. 54
- D. 329

1.15 50774285

Each base of a right rectangular prism has a length of 19 inches and a width of 8 inches. The prism has a volume of 2,736 cubic inches. What is the height, in inches, of the prism?

- A. 18
- B. 27
- C. 144
- D. 152

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1.16 fc5ef8d3

The table gives the perimeters of similar triangles TUV and XYZ , where \overline{TU} corresponds to \overline{XY} . The length of \overline{TU} is 6.

	Perimeter
Triangle TUV	50
Triangle XYZ	150

What is the length of \overline{XY} ?

- A. 2
- B. 6
- C. 18
- D. 56

1.17 0e40dfb0

A rectangle has a length of 3 units and a width of 39 units. Which expression gives the area, in square units, of this rectangle?

- A. $2(3 + 39)$
- B. $2(3 \cdot 39)$
- C. $3 + 39$
- D. $3 \cdot 39$

1.18 2b41a4c4

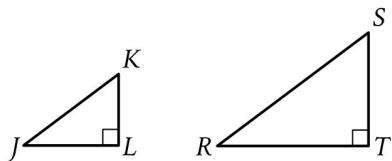
A right rectangular prism has a length of 11 meters, a width of 8 meters, and a height of 10 meters. What is the volume, in cubic meters, of the prism?

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1.19 babd7461



Note: Figure not drawn to scale.

In the figure shown, triangle JKL is similar to triangle RST , where J corresponds to R and K corresponds to S . The length of \overline{JK} is 15, and the perimeter of triangle JKL is 36. The length of \overline{RS} is 135. What is the perimeter of triangle RST ?

- A. 324
- B. 540
- C. 2,916
- D. 8,100

1.20 bb560789

Triangle R has an area of 80 square centimeters (cm^2). Square S has side lengths of 4 cm. What is the total area of triangle R and square S , in cm^2 ?

- A. 42
- B. 44
- C. 84
- D. 96