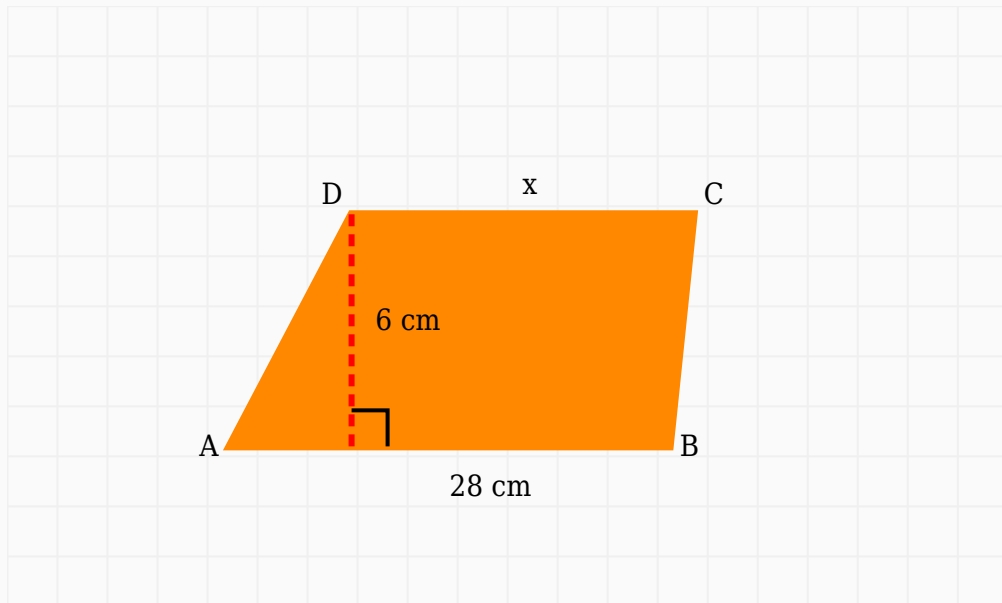


Area of Trapezium Worksheet

Question 1

The area of a trapezium is 96 cm^2 . One parallel side is 28 cm and height is 6 cm . Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$96 = 6 \times (x + 28) \div 2$$

$$192 = 6 \times (x + 28)$$

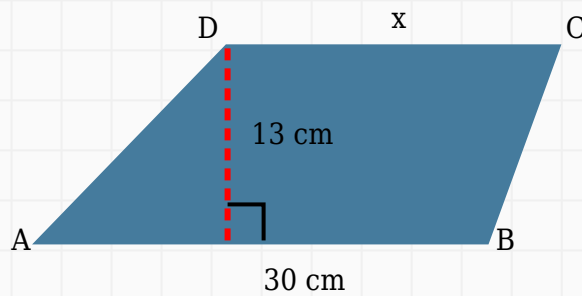
$$32 = x + 28$$

$$x = 4 \text{ cm}$$

Answer: 4 cm

Question 2

The area of a trapezium is 286 cm^2 . One parallel side is 30 cm and height is 13 cm . Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$286 = 13 \times (x + 30) \div 2$$

$$572 = 13 \times (x + 30)$$

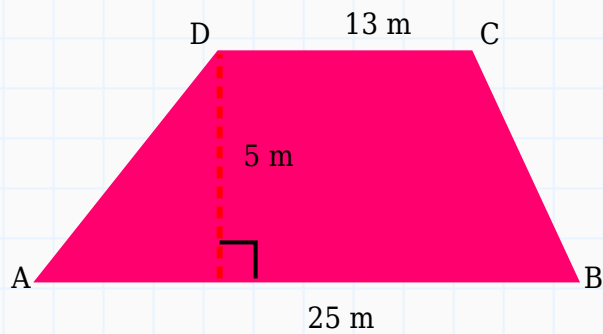
$$44 = x + 30$$

$$x = 14 \text{ cm}$$

Answer: 14 cm

Question 3

Find the area of the trapezium having parallel sides 13 m and 25 m with height 5 m.



Solution:

Formula: $\text{Area} = \text{Height} \times (\text{Sum of parallel sides}) \div 2$

$$\text{Area} = 5 \times (13 + 25) \div 2$$

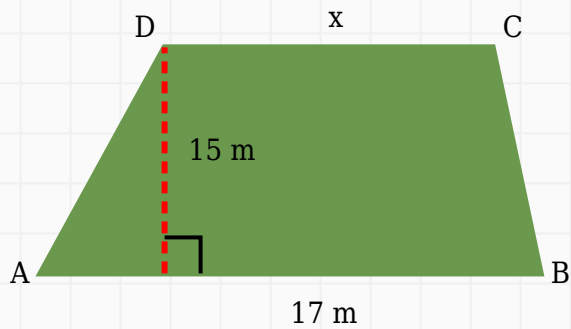
$$\text{Area} = 5 \times 38 \div 2$$

$$\text{Area} = 95 \text{ m}^2$$

Answer: 95 m^2

Question 4

The area of a trapezium is 157.5 m^2 . One parallel side is 17 m and height is 15 m. Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$157.5 = 15 \times (x + 17) \div 2$$

$$315 = 15 \times (x + 17)$$

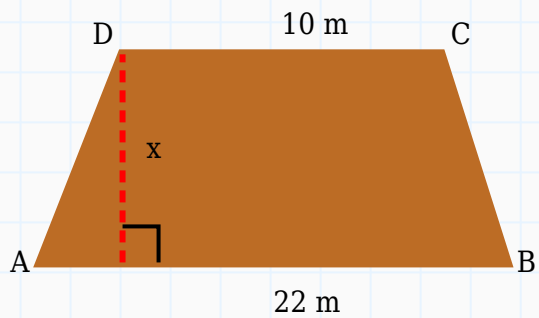
$$21 = x + 17$$

$$x = 4 \text{ m}$$

Answer: 4 m

Question 5

The area of a trapezium is 192 m^2 . Its parallel sides are 10 m and 22 m. Find the height.



Solution:

Formula: Height = $(2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 192) \div (10 + 22)$$

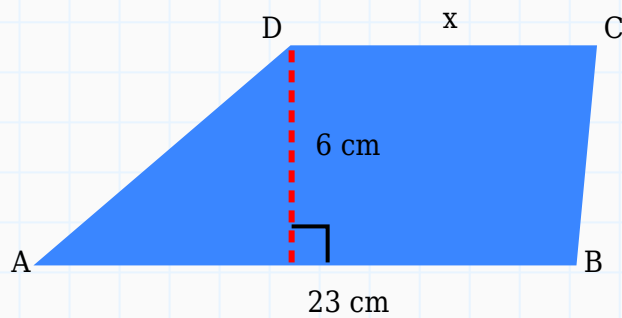
$$\text{Height} = 384 \div 32$$

$$\text{Height} = 12 \text{ m}$$

Answer: 12 m

Question 6

The area of a trapezium is 96 cm^2 . One parallel side is 23 cm and height is 6 cm. Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$96 = 6 \times (x + 23) \div 2$$

$$192 = 6 \times (x + 23)$$

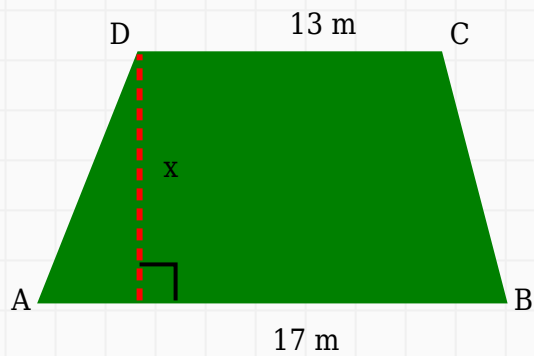
$$32 = x + 23$$

$$x = 9 \text{ cm}$$

Answer: 9 cm

Question 7

The area of a trapezium is 135 m^2 . Its parallel sides are 13 m and 17 m. Find the height.



Solution:

Formula: Height = $(2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 135) \div (13 + 17)$$

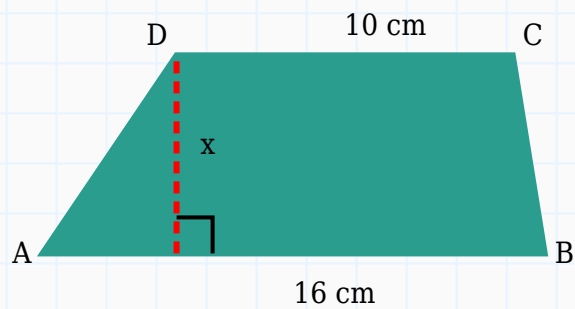
$$\text{Height} = 270 \div 30$$

$$\text{Height} = 9 \text{ m}$$

Answer: 9 m

Question 8

The area of a trapezium is 130 cm^2 . Its parallel sides are 10 cm and 16 cm. Find the height.



Solution:

Formula: Height = $(2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 130) \div (10 + 16)$$

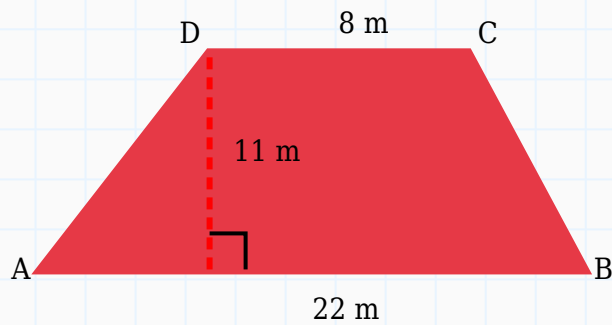
$$\text{Height} = 260 \div 26$$

$$\text{Height} = 10 \text{ cm}$$

Answer: 10 cm

Question 9

Find the area of the trapezium having parallel sides 8 m and 22 m with height 11 m.



Solution:

Formula: $\text{Area} = \text{Height} \times (\text{Sum of parallel sides}) \div 2$

$$\text{Area} = 11 \times (8 + 22) \div 2$$

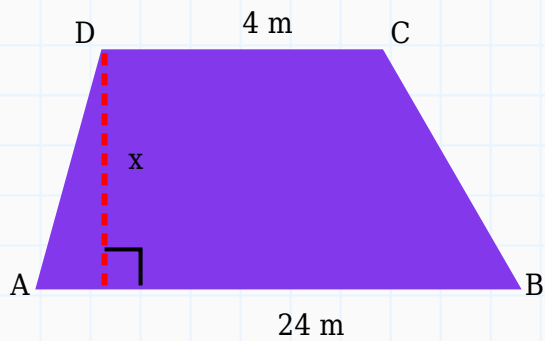
$$\text{Area} = 11 \times 30 \div 2$$

$$\text{Area} = 165 \text{ m}^2$$

Answer: 165 m^2

Question 10

The area of a trapezium is 112 m^2 . Its parallel sides are 4 m and 24 m. Find the height.



Solution:

Formula: Height = $(2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 112) \div (4 + 24)$$

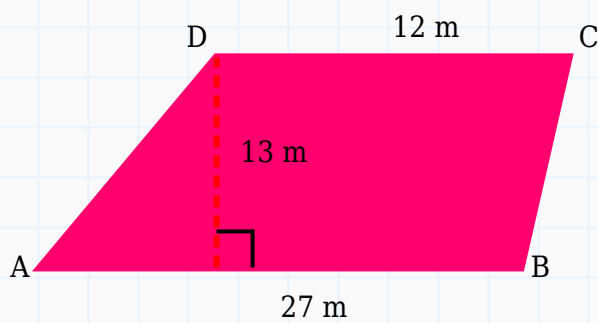
$$\text{Height} = 224 \div 28$$

$$\text{Height} = 8 \text{ m}$$

Answer: 8 m

Question 11

Find the area of the trapezium having parallel sides 12 m and 27 m with height 13 m.



Solution:

Formula: $\text{Area} = \text{Height} \times (\text{Sum of parallel sides}) \div 2$

$$\text{Area} = 13 \times (12 + 27) \div 2$$

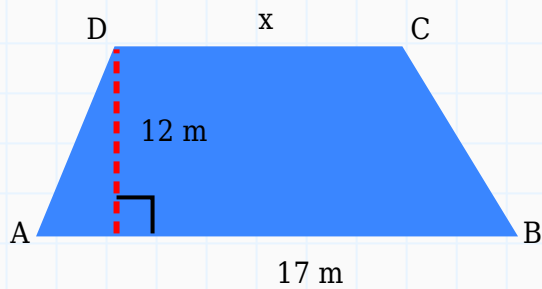
$$\text{Area} = 13 \times 39 \div 2$$

$$\text{Area} = 253.5 \text{ m}^2$$

Answer: 253.5 m^2

Question 12

The area of a trapezium is 156 m^2 . One parallel side is 17 m and height is 12 m. Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$156 = 12 \times (x + 17) \div 2$$

$$312 = 12 \times (x + 17)$$

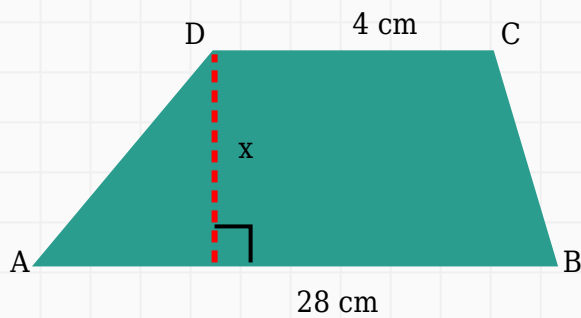
$$26 = x + 17$$

$$x = 9 \text{ m}$$

Answer: 9 m

Question 13

The area of a trapezium is 144 cm^2 . Its parallel sides are 4 cm and 28 cm. Find the height.



Solution:

Formula: $\text{Height} = (2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 144) \div (4 + 28)$$

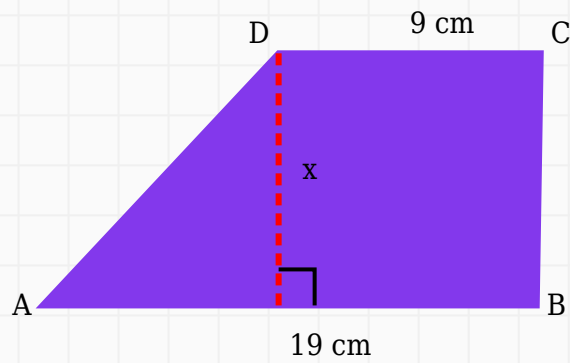
$$\text{Height} = 288 \div 32$$

$$\text{Height} = 9 \text{ cm}$$

Answer: 9 cm

Question 14

The area of a trapezium is 112 cm^2 . Its parallel sides are 9 cm and 19 cm. Find the height.



Solution:

Formula: Height = $(2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 112) \div (9 + 19)$$

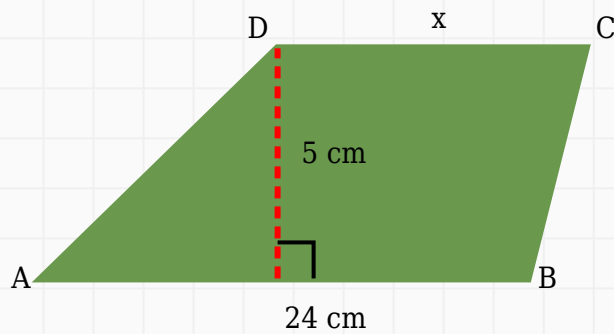
$$\text{Height} = 224 \div 28$$

$$\text{Height} = 8 \text{ cm}$$

Answer: 8 cm

Question 15

The area of a trapezium is 90 cm^2 . One parallel side is 24 cm and height is 5 cm. Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$90 = 5 \times (x + 24) \div 2$$

$$180 = 5 \times (x + 24)$$

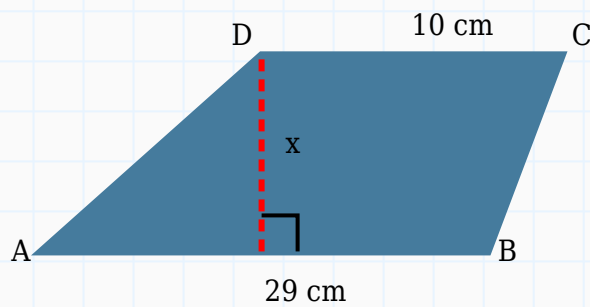
$$36 = x + 24$$

$$x = 12 \text{ cm}$$

Answer: 12 cm

Question 16

The area of a trapezium is 214.5 cm^2 . Its parallel sides are 10 cm and 29 cm. Find the height.



Solution:

Formula: Height = $(2 \times \text{Area}) \div \text{Sum of parallel sides}$

$$\text{Height} = (2 \times 214.5) \div (10 + 29)$$

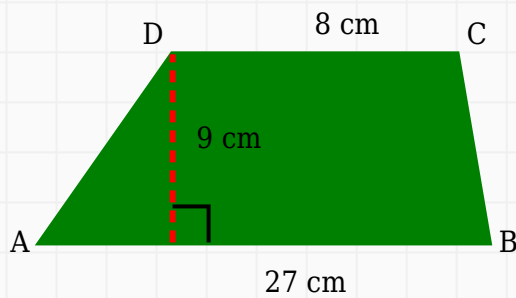
$$\text{Height} = 429 \div 39$$

$$\text{Height} = 11 \text{ cm}$$

Answer: 11 cm

Question 17

Find the area of the trapezium having parallel sides 8 cm and 27 cm with height 9 cm.



Solution:

Formula: $\text{Area} = \text{Height} \times (\text{Sum of parallel sides}) \div 2$

$$\text{Area} = 9 \times (8 + 27) \div 2$$

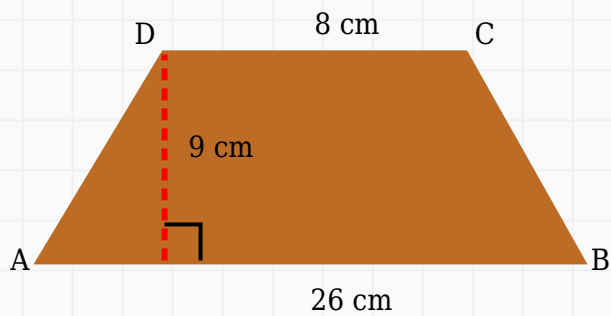
$$\text{Area} = 9 \times 35 \div 2$$

$$\text{Area} = 157.5 \text{ cm}^2$$

Answer: 157.5 cm^2

Question 18

Find the area of the trapezium having parallel sides 8 cm and 26 cm with height 9 cm.



Solution:

Formula: $\text{Area} = \text{Height} \times (\text{Sum of parallel sides}) \div 2$

$$\text{Area} = 9 \times (8 + 26) \div 2$$

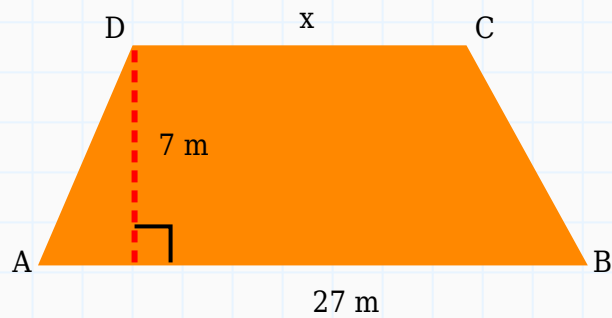
$$\text{Area} = 9 \times 34 \div 2$$

$$\text{Area} = 153 \text{ cm}^2$$

Answer: 153 cm^2

Question 19

The area of a trapezium is 133 m^2 . One parallel side is 27 m and height is 7 m. Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$133 = 7 \times (x + 27) \div 2$$

$$266 = 7 \times (x + 27)$$

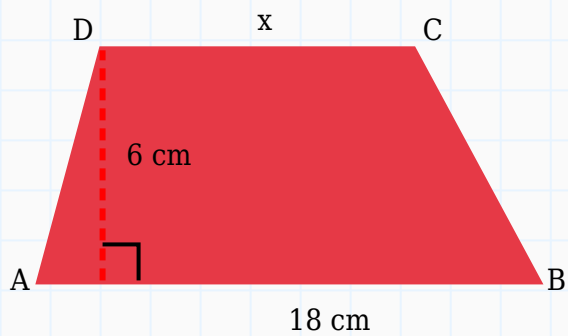
$$38 = x + 27$$

$$x = 11 \text{ m}$$

Answer: 11 m

Question 20

The area of a trapezium is 99 cm^2 . One parallel side is 18 cm and height is 6 cm. Find the other parallel side.



Solution:

Formula: $\text{Area} = \text{Height} \times (a + b) \div 2$

$$99 = 6 \times (x + 18) \div 2$$

$$198 = 6 \times (x + 18)$$

$$33 = x + 18$$

$$x = 15 \text{ cm}$$

Answer: 15 cm