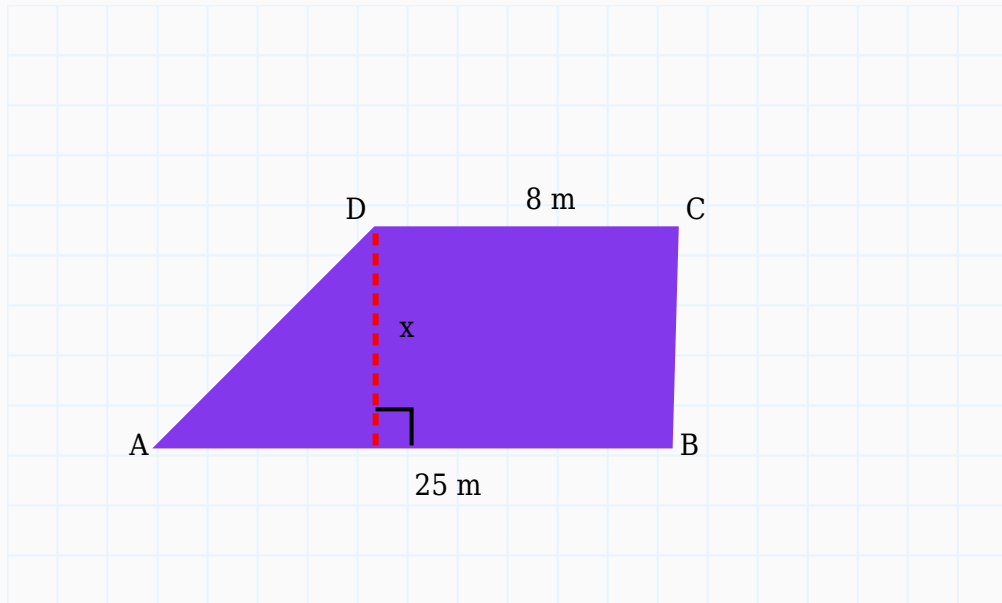


Area of Trapezium Worksheet

Question 1

The area of a trapezium is 198 m^2 . Its parallel sides are 8 m and 25 m. Find the height.



Solution:

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

$$\text{Height} = (2 \times 198) \div (8 + 25)$$

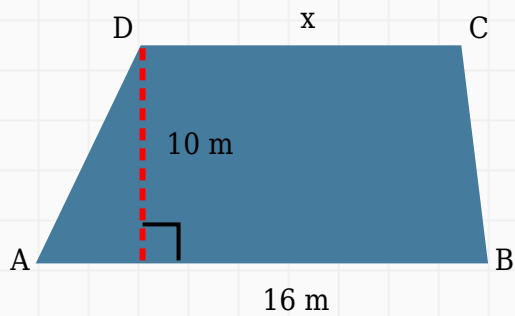
$$\text{Height} = 396 \div 33$$

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

Answer: 12 m

Question 2

The area of a trapezium is 140 m^2 . One parallel side is 16 m and height is 10 m. Find the other parallel side.



Solution:

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

$$140 = 10 \times (x + 16) \div 2$$

$$280 = 10 \times (x + 16)$$

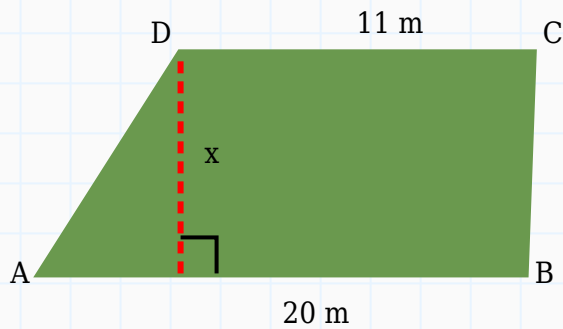
$$28 = x + 16$$

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

Answer: 12 m

Question 3

The area of a trapezium is 201.5 m^2 . Its parallel sides are 11 m and 20 m. Find the height.



Solution:

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

$$\text{Height} = (2 \times 201.5) \div (11 + 20)$$

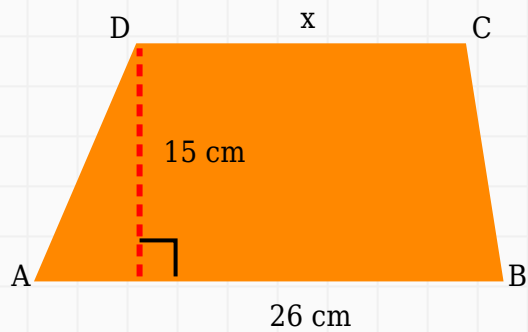
$$\text{Height} = 403 \div 31$$

$$\text{Height} = 13 \text{ m}$$

Answer: 13 m

Question 4

The area of a trapezium is 255 cm^2 . One parallel side is 26 cm and height is 15 cm. Find the other parallel side.



Solution:

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

$$255 = 15 \times (x + 26) \div 2$$

$$510 = 15 \times (x + 26)$$

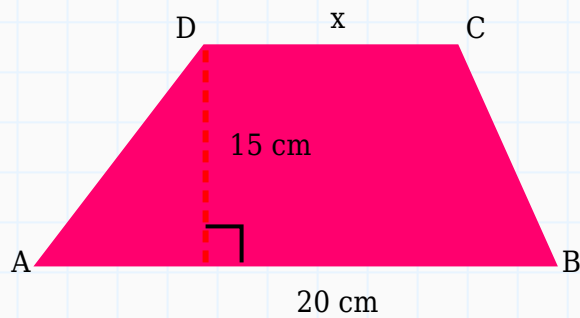
$$34 = x + 26$$

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

Answer: 8 cm

Question 5

The area of a trapezium is 247.5 cm^2 . One parallel side is 20 cm and height is 15 cm. Find the other parallel side.



Solution:

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

$$247.5 = 15 \times (x + 20) \div 2$$

$$495 = 15 \times (x + 20)$$

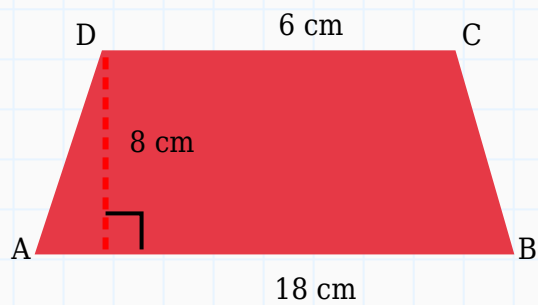
$$33 = x + 20$$

$$x = 13 \text{ cm}$$

Answer: 13 cm

Question 6

Find the area of the trapezium having parallel sides 6 cm and 18 cm with height 8 cm.



Solution:

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

$$\text{Area} = 8 \times (6 + 18) \div 2$$

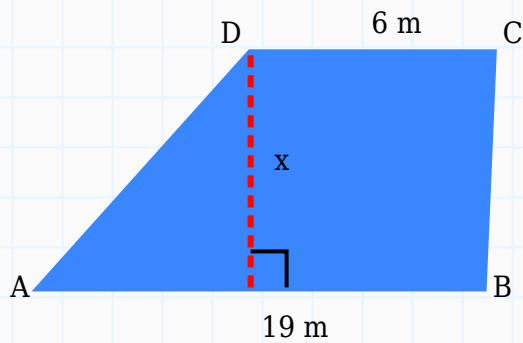
$$\text{Area} = 8 \times 24 \div 2$$

$$\text{Area} = 96 \text{ cm}^2$$

Answer: 96 cm^2

Question 7

The area of a trapezium is 112.5 m^2 . Its parallel sides are 6 m and 19 m. Find the height.



Solution:

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

$$\text{Height} = (2 \times 112.5) \div (6 + 19)$$

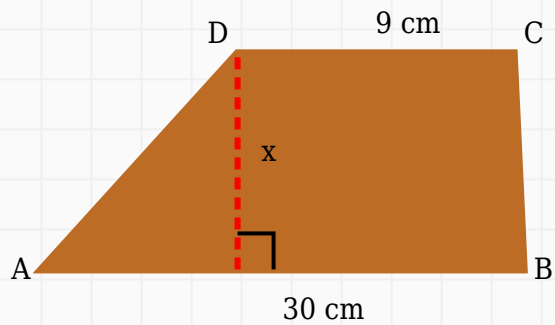
$$\text{Height} = 225 \div 25$$

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

Answer: 9 m

Question 8

The area of a trapezium is 253.5 cm^2 . Its parallel sides are 9 cm and 30 cm. Find the height.



Solution:

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

$$\text{Height} = (2 \times 253.5) \div (9 + 30)$$

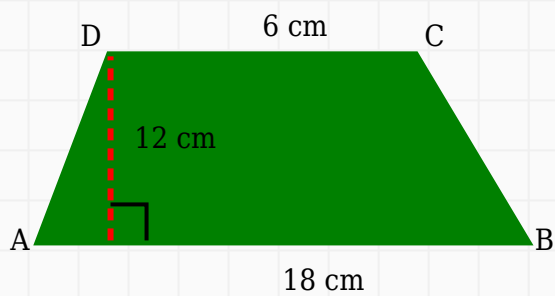
$$\text{Height} = 507 \div 39$$

$$\text{Height} = 13 \text{ cm}$$

Answer: 13 cm

Question 9

Find the area of the trapezium having parallel sides 6 cm and 18 cm with height 12 cm.



Solution:

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

$$\text{Area} = 12 \times (6 + 18) \div 2$$

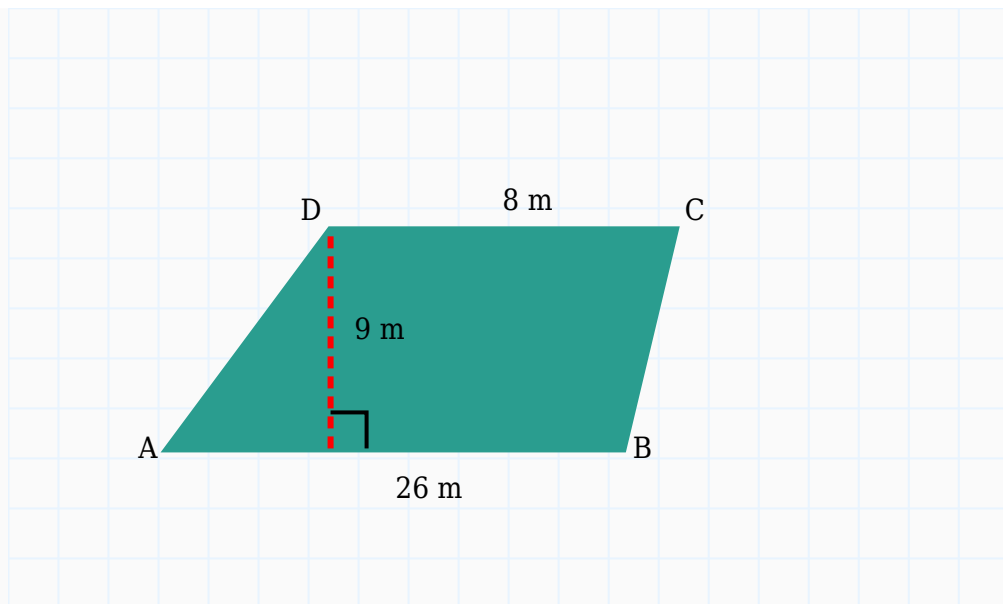
$$\text{Area} = 12 \times 24 \div 2$$

$$\text{Area} = 144 \text{ cm}^2$$

Answer: 144 cm^2

Question 10

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



Solution:

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

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

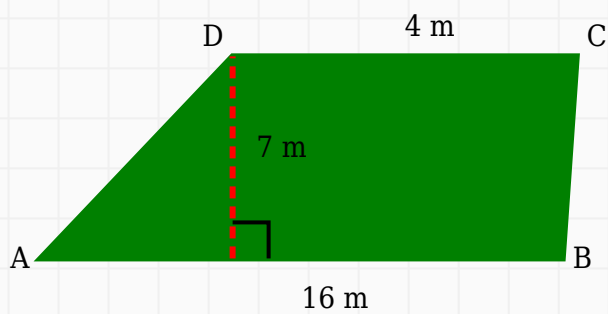
$$\text{Area} = 9 \times 34 \div 2$$

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

Answer: 153 m^2

Question 11

Find the area of the trapezium having parallel sides 4 m and 16 m with height 7 m.



Solution:

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

$$\text{Area} = 7 \times (4 + 16) \div 2$$

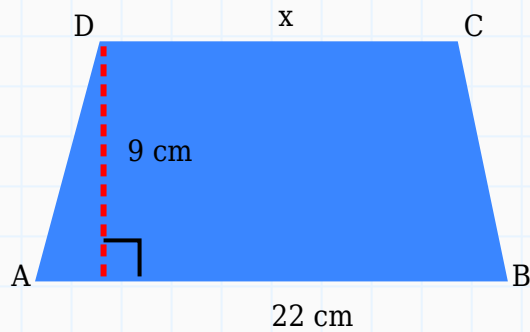
$$\text{Area} = 7 \times 20 \div 2$$

$$\text{Area} = 70 \text{ m}^2$$

Answer: 70 m^2

Question 12

The area of a trapezium is 153 cm^2 . One parallel side is 22 cm and height is 9 cm . Find the other parallel side.



Solution:

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

$$153 = 9 \times (x + 22) \div 2$$

$$306 = 9 \times (x + 22)$$

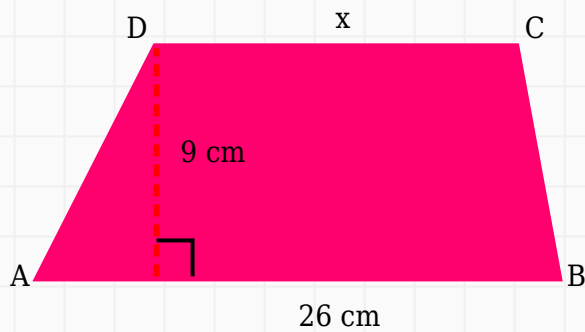
$$34 = x + 22$$

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

Answer: 12 cm

Question 13

The area of a trapezium is 166.5 cm^2 . One parallel side is 26 cm and height is 9 cm. Find the other parallel side.



Solution:

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

$$166.5 = 9 \times (x + 26) \div 2$$

$$333 = 9 \times (x + 26)$$

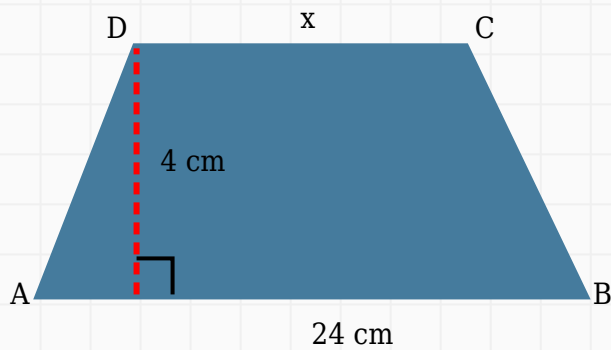
$$37 = x + 26$$

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

Answer: 11 cm

Question 14

The area of a trapezium is 76 cm^2 . One parallel side is 24 cm and height is 4 cm. Find the other parallel side.



Solution:

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

$$76 = 4 \times (x + 24) \div 2$$

$$152 = 4 \times (x + 24)$$

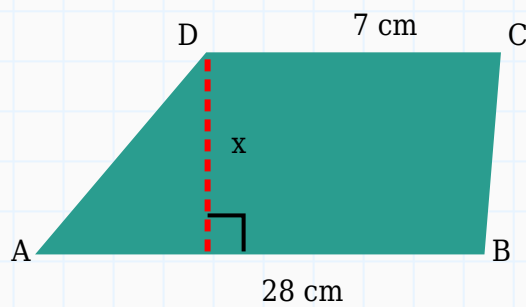
$$38 = x + 24$$

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

Answer: 14 cm

Question 15

The area of a trapezium is 192.5 cm^2 . Its parallel sides are 7 cm and 28 cm. Find the height.



Solution:

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

$$\text{Height} = (2 \times 192.5) \div (7 + 28)$$

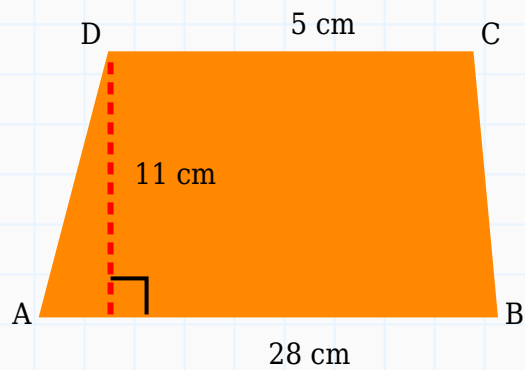
$$\text{Height} = 385 \div 35$$

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

Answer: 11 cm

Question 16

Find the area of the trapezium having parallel sides 5 cm and 28 cm with height 11 cm.



Solution:

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

$$\text{Area} = 11 \times (5 + 28) \div 2$$

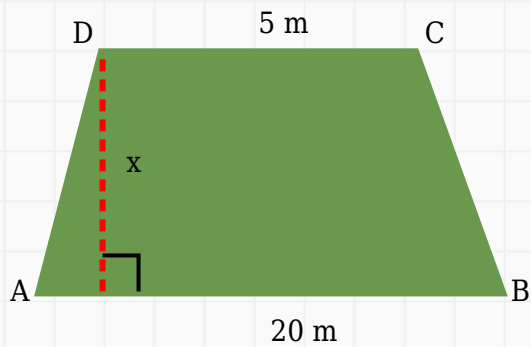
$$\text{Area} = 11 \times 33 \div 2$$

$$\text{Area} = 181.5 \text{ cm}^2$$

Answer: 181.5 cm^2

Question 17

The area of a trapezium is 175 m^2 . Its parallel sides are 5 m and 20 m. Find the height.



Solution:

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

$$\text{Height} = (2 \times 175) \div (5 + 20)$$

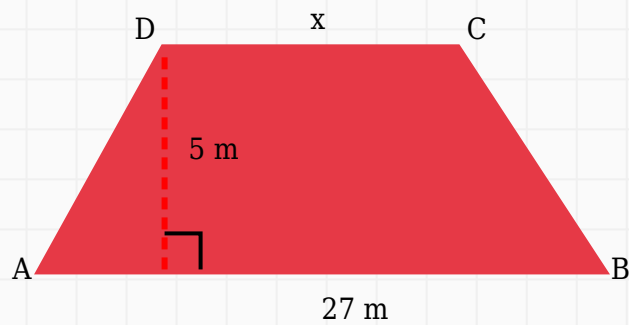
$$\text{Height} = 350 \div 25$$

$$\text{Height} = 14 \text{ m}$$

Answer: 14 m

Question 18

The area of a trapezium is 100 m^2 . One parallel side is 27 m and height is 5 m. Find the other parallel side.



Solution:

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

$$100 = 5 \times (x + 27) \div 2$$

$$200 = 5 \times (x + 27)$$

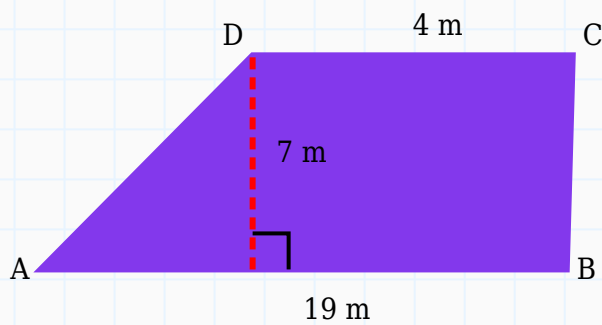
$$40 = x + 27$$

$$x = 13 \text{ m}$$

Answer: 13 m

Question 19

Find the area of the trapezium having parallel sides 4 m and 19 m with height 7 m.



Solution:

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

$$\text{Area} = 7 \times (4 + 19) \div 2$$

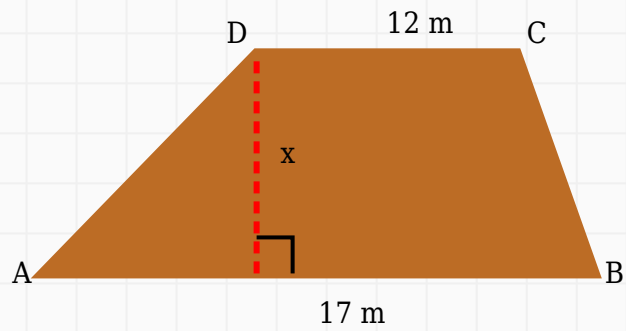
$$\text{Area} = 7 \times 23 \div 2$$

$$\text{Area} = 80.5 \text{ m}^2$$

Answer: 80.5 m^2

Question 20

The area of a trapezium is 101.5 m^2 . Its parallel sides are 12 m and 17 m. Find the height.



Solution:

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

$$\text{Height} = (2 \times 101.5) \div (12 + 17)$$

$$\text{Height} = 203 \div 29$$

$$\text{Height} = 7 \text{ m}$$

Answer: 7 m