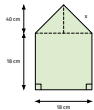


Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

1.



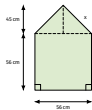
Solution

$$x^2 = 9^2 + 40^2 = 1681$$

$$\text{so } x = 41$$

$$P = 3(18) + 2(41) = 136 \text{ m}$$

2.



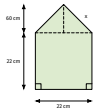
Solution

$$x^2 = 28^2 + 45^2 = 2809$$

$$\text{so } x = 53$$

$$P = 3(56) + 2(53) = 274 \text{ m}$$

3.



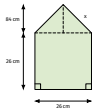
Solution

$$x^2 = 11^2 + 60^2 = 3721$$

$$\text{so } x = 61$$

$$P = 3(22) + 2(61) = 188 \text{ m}$$

4.



Solution

$$x^2 = 13^2 + 84^2 = 7225$$

$$\text{so } x = 85$$

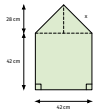
$$P = 3(26) + 2(85) = 248 \text{ m}$$

Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

5.



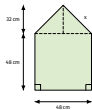
Solution

$$x^2 = 21^2 + 28^2 = 1225$$

$$\text{so } x = 35$$

$$P = 3(42) + 2(35) = 196 \text{ m}$$

6.



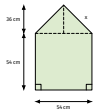
Solution

$$x^2 = 24^2 + 32^2 = 1600$$

$$\text{so } x = 40$$

$$P = 3(48) + 2(40) = 224 \text{ m}$$

7.



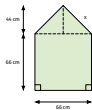
Solution

$$x^2 = 27^2 + 36^2 = 2025$$

$$\text{so } x = 45$$

$$P = 3(54) + 2(45) = 252 \text{ m}$$

8.



Solution

$$x^2 = 33^2 + 44^2 = 3025$$

$$\text{so } x = 55$$

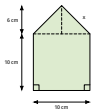
$$P = 3(66) + 2(55) = 308 \text{ m}$$

Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

9.



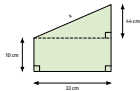
Solution

$$x^2 = 5^2 + 6^2 = 61$$

$$x = \sqrt{61} \approx 7.81$$

$$P = 3(10) + 2(7.81) \approx 45.6 \text{ m}$$

10.



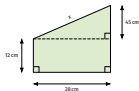
Solution

$$x^2 = 33^2 + 44^2 = 3025$$

$$\text{so } x = 55$$

$$P = 33 + 10 + (10+44) + 55 = 152 \text{ m}$$

11.



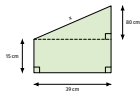
Solution

$$x^2 = 28^2 + 45^2 = 2809$$

$$\text{so } x = 53$$

$$P = 28 + 12 + (12+45) + 53 = 150 \text{ m}$$

12.



Solution

$$x^2 = 39^2 + 80^2 = 7921$$

$$\text{so } x = 89$$

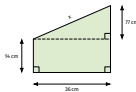
$$P = 39 + 15 + (15+80) + 89 = 238 \text{ m}$$

Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

13.



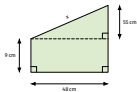
Solution

$$x^2 = 36^2 + 77^2 = 7225$$

$$\text{so } x = 85$$

$$P = 36 + 14 + (14+77) + 85 = 226 \text{ m}$$

14.



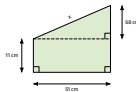
Solution

$$x^2 = 48^2 + 55^2 = 5329$$

$$\text{so } x = 73$$

$$P = 48 + 9 + (9+55) + 73 = 194 \text{ m}$$

15.



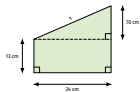
Solution

$$x^2 = 51^2 + 68^2 = 7225$$

$$\text{so } x = 85$$

$$P = 51 + 11 + (11+68) + 85 = 226 \text{ m}$$

16.



Solution

$$x^2 = 24^2 + 70^2 = 5476$$

$$\text{so } x = 74$$

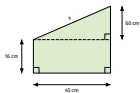
$$P = 24 + 13 + (13+70) + 74 = 194 \text{ m}$$

Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

17.



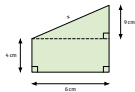
Solution

$$x^2 = 45^2 + 60^2 = 5625$$

$$\text{so } x = 75$$

$$P = 45 + 16 + (16+60) + 75 = 212 \text{ m}$$

18.



Solution

$$x^2 = 6^2 + 9^2 = 117$$

$$x = \sqrt{117} \approx 10.8$$

$$P \approx 6 + 4 + 13 + 10.8 = 33.8 \text{ m}$$

19. Cabin: 16 m square base, 6 m roof, centred.

Solution

$$\text{Half base } 8: x^2 = 8^2 + 6^2 = 100, \text{ so } x = 10 \text{ m}$$

$$P = 3(16) + 2(10) = 68 \text{ m}$$

20. Fence: 9 m wide, sides 5 m & 5+12 m.

Solution

$$x^2 = 9^2 + 12^2 = 225, \text{ so } x = 15 \text{ m}$$

$$\text{Tall side } 17; P = 9 + 5 + 17 + 15 = 46 \text{ m}$$

Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

21. Awning: 16 m parallelogram, 15 m cap.

Solution

Half base 8: $x^2 = 8^2 + 15^2 = 289$, so
 $x = 17$ m

Cap $P = 16 + 2(17) = 50$ m

22. Cabin: 14 m square base, 5 m roof (1 d.p.).

Solution

Half base 7: $x^2 = 7^2 + 5^2 = 74$, so
 $x \approx 8.6$ m

$P = 3(14) + 2(8.6) \approx 59.2$ m

23. Ramp: 4 m wide, sides 2 m & 2+7 m (1 d.p.).

Solution

$x^2 = 4^2 + 7^2 = 65$, so $x \approx 8.06$ m

Tall side 9; $P \approx 4 + 2 + 9 + 8.06 = 23.1$ m

24. Cabin: 40 m square base, 21 m roof, centred.

Solution

Half base 20: $x^2 = 20^2 + 21^2 = 841$, so
 $x = 29$ m

$P = 3(40) + 2(29) = 178$ m

Push Tasks — Answers



Find the missing length with Pythagoras (round where needed), then the total perimeter.

25. Fence: 65 m wide, sides 18 m & 18+72 m.

Solution

$x^2 = 65^2 + 72^2 = 9409$, so $x = 97$ m

Tall side 90;

$P = 65 + 18 + 90 + 97 = 270$ m

26. Awning: 48 m parallelogram, 45 m cap.

Solution

Half base 24: $x^2 = 24^2 + 45^2 = 2601$, so $x = 51$ m

Cap $P = 48 + 2(51) = 150$ m

27. Awning: 10 m parallelogram, 6 m cap (1 d.p.).

Solution

Half base 5: $x^2 = 5^2 + 6^2 = 61$, so

$x \approx 7.81$ m

Cap $P = 10 + 2(7.81) \approx 25.6$ m