

1. Which numbers below are perfect squares? How do you know?

a) $\frac{25}{121}$

b) 2.89

c) $\frac{2}{50}$

d) 0.004

2. Calculate the perfect square whose square root is:

a) $\frac{5}{7}$

b) 1.6

c) 0.92

d) $\frac{10}{9}$

3. Determine the value of each square root.

a) $\sqrt{\frac{225}{49}}$

b) $\sqrt{\frac{9}{25}}$

c) $\sqrt{\frac{400}{324}}$

d) $\sqrt{\frac{8}{98}}$

4. Determine the value of each square root.

a) $\sqrt{6.76}$

b) $\sqrt{327.61}$

c) $\sqrt{0.0025}$

d) $\sqrt{0.0225}$

5. The area of a square garden is 12.25 m^2 .

a. Determine the perimeter of the garden.

b. The owner decides to put a gravel pathway around the garden. This reduces the area of the garden by 4.96 m^2 . What is the new side length of the garden?

6. Which numbers below are perfect squares? How do you know?

a) $\sqrt{\frac{16}{53}}$

b) $\sqrt{\frac{1}{25}}$

c) $\sqrt{0.009}$

d) $\sqrt{10.24}$

7. Use benchmarks to approximate each square root to the nearest tenth.

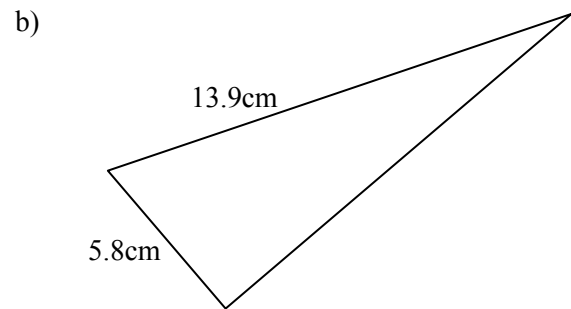
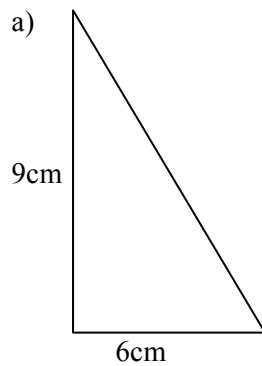
a) $\sqrt{11.6}$

b) $\sqrt{0.39}$

c) $\sqrt{\frac{21}{2}}$

d) $\sqrt{\frac{11}{52}}$

8. In each triangle, determine the unknown length to the nearest tenth of a unit where necessary.

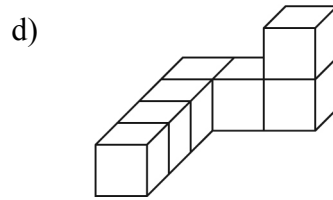
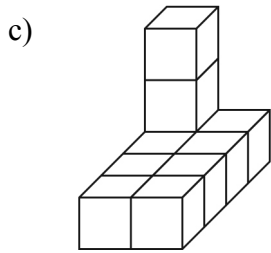
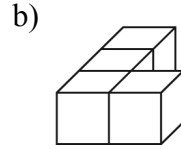
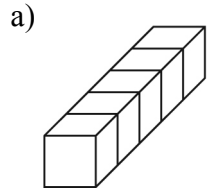


9. Given are the sides of two triangles. Are they right triangles?

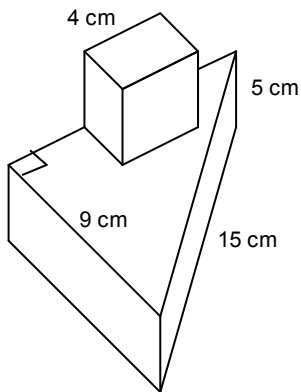
a. 10, 13, 15

b. 12, 16, 20

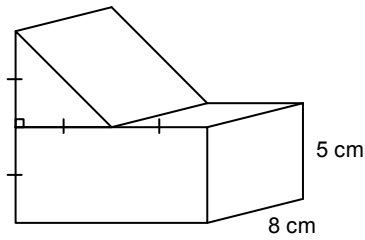
10. Each cube has edge length 1 unit.
 Determine the surface area of each object.



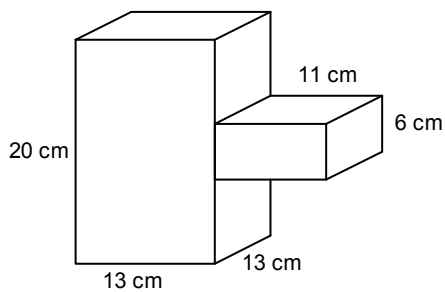
11. A 4-cm cube is attached to the top of a right triangular prism as shown.
 Determine the surface area of the composite object, to the nearest square centimetre.



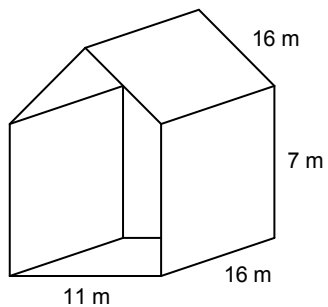
12. An object is composed of a right rectangular prism and a triangular prism.
Determine the surface area of this composite object, to the nearest square centimetre.



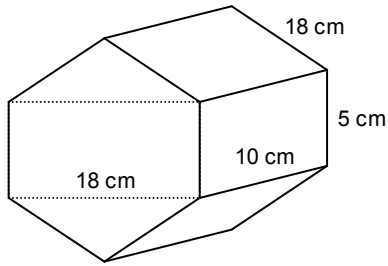
13. This object is composed of a right rectangular prism attached to the side of a larger right rectangular prism.
Determine the surface area of the object.



14. A shed is open at both ends. The walls and roof will be painted inside and outside.
What is the area that needs to be painted?



15. This object is composed of a right rectangular prism with two congruent triangular prisms attached, one to the top and the other to bottom. Determine the surface area of the object, to the nearest square centimetre.



16. A warehouse measures 60 m by 50 m by 20 m. It has an open door that measures 15 m by 10 m on the front. A store room that measures 40 m by 25 m by 10 m is attached to one wall of the warehouse. Determine the total surface area of the warehouse building. Show your calculations.

