THIRD SPACE LEARNING

Surface Area of a Triangular Prism Worksheet

Geometry

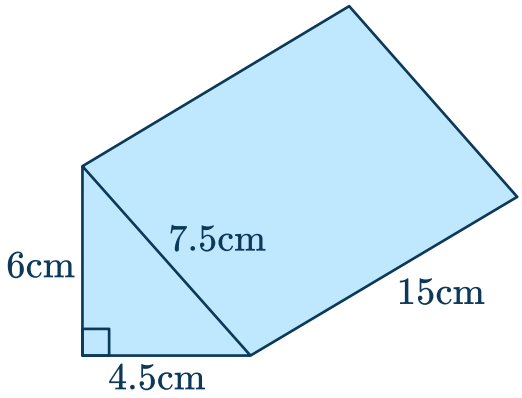
Grades 6 to 8

Skill Questions

Name: .....

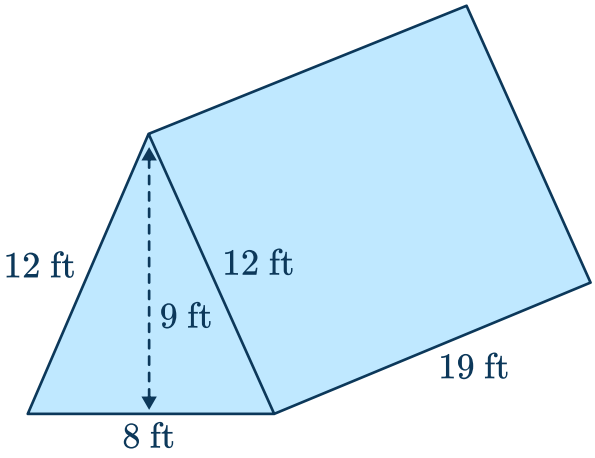
Date: .....

1 Calculate the surface area of the triangular prism.



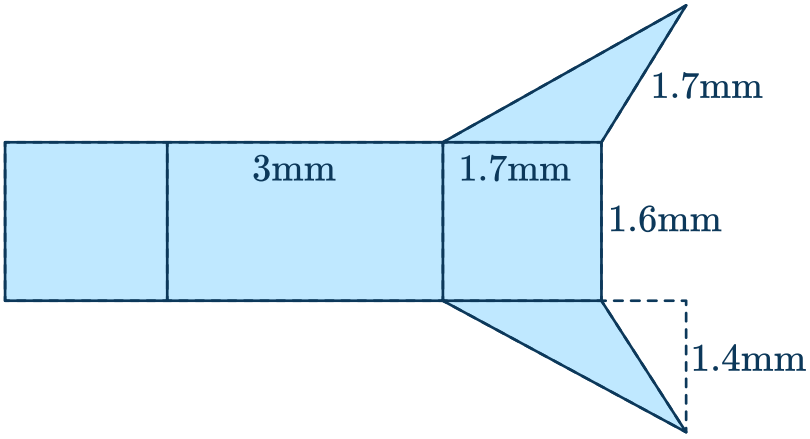
Answer

2 Calculate the surface area of the triangular prism.



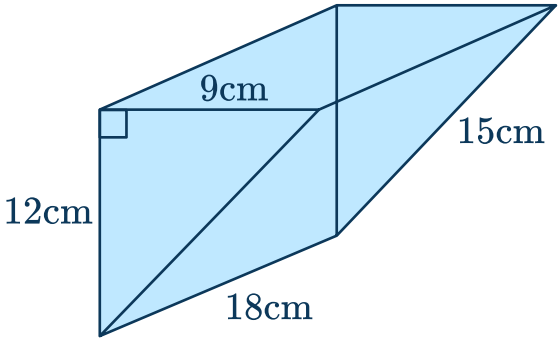
Answer

3 Calculate the surface area.



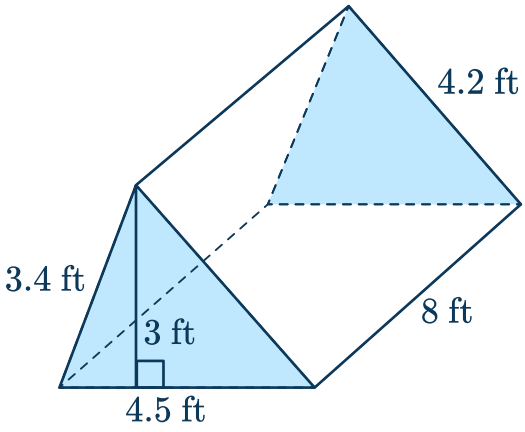
Answer

4 Calculate the surface area of the triangular prism.



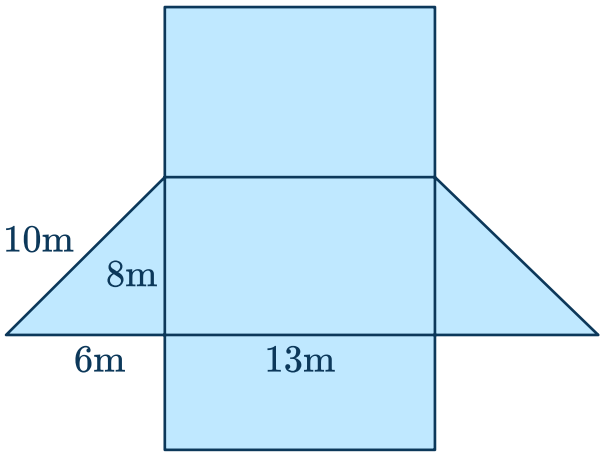
Answer

5 Calculate the surface area.



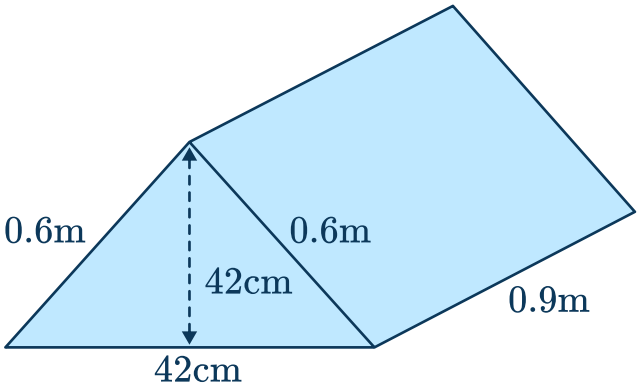
Answer

6 Below is a net of a triangular prism. Calculate the surface area.



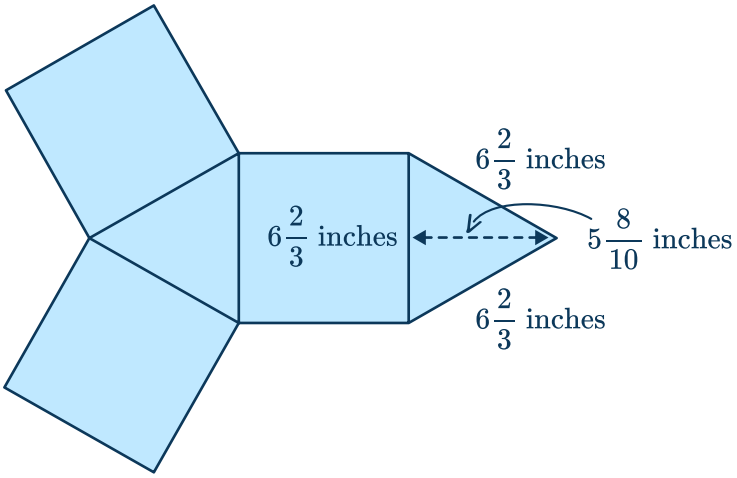
Answer

7 Calculate the surface area of the triangular prism in cm^2.



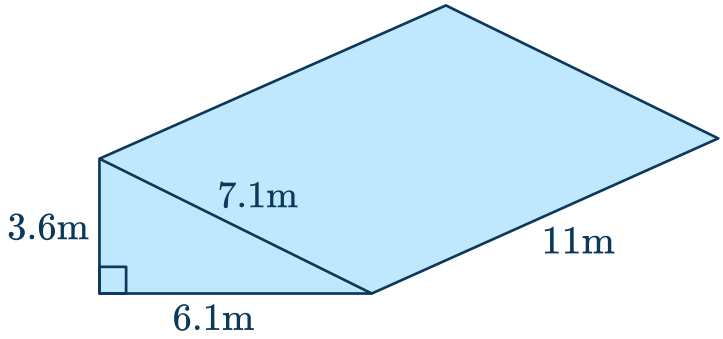
Answer

8 Below is a net of a triangular prism. Calculate the surface area.



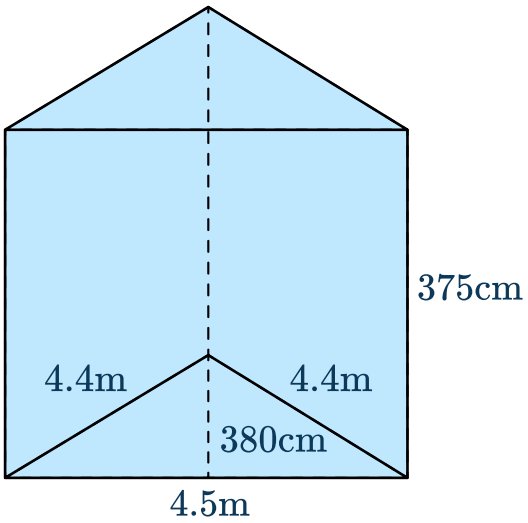
Answer

9 Calculate the surface area of the triangular prism.



Answer

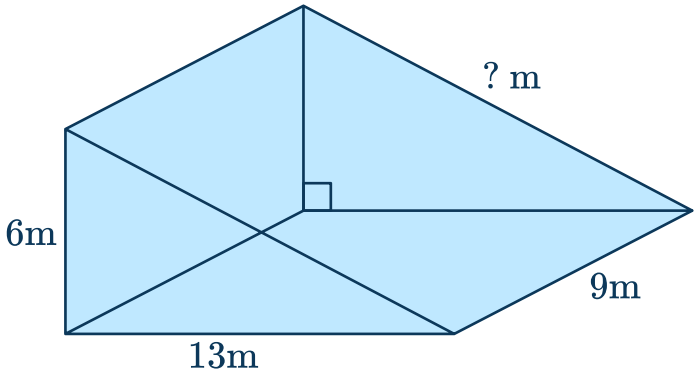
10 Calculate the surface area of the triangular prism in m^2.



Answer

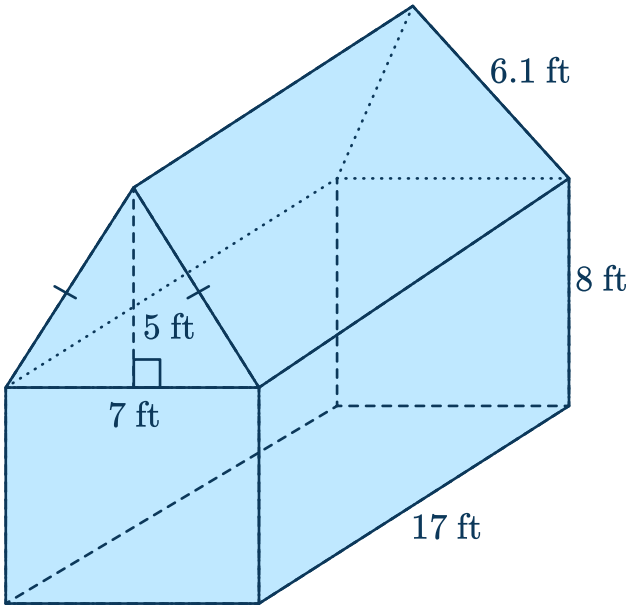
Applied Questions

11 The total surface area is $377.7m^2$. Find the missing dimension.



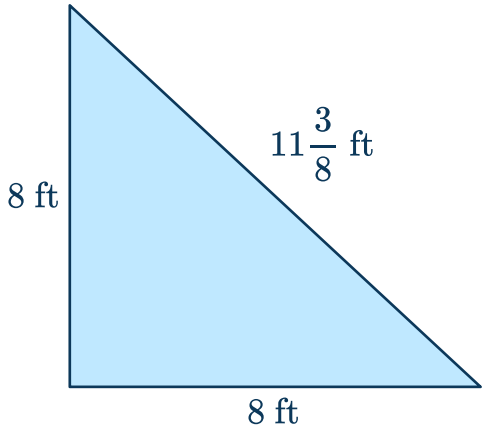
Answer

12 Helena is painting the roof of her garden shed. The paint costs $0.18 per square foot. How much money will Helena spend to paint the roof?



Answer

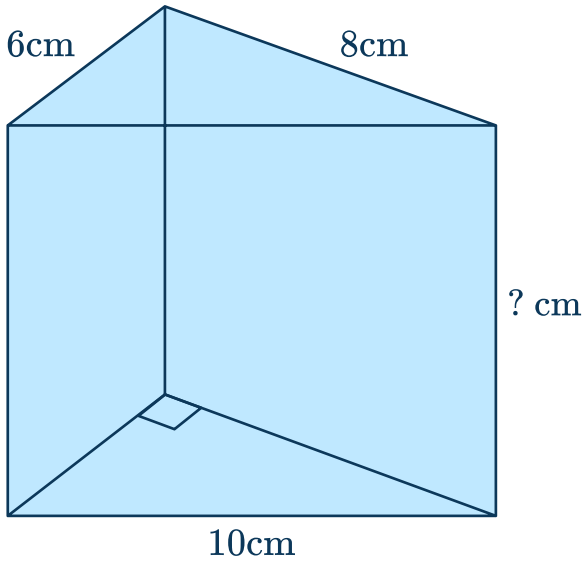
13 Below is a picture of Nevaeh's garden.



Neveah wants to add a 4 foot tall fence around the perimeter of the garden. How many feet² of fencing does Nevaeh need?

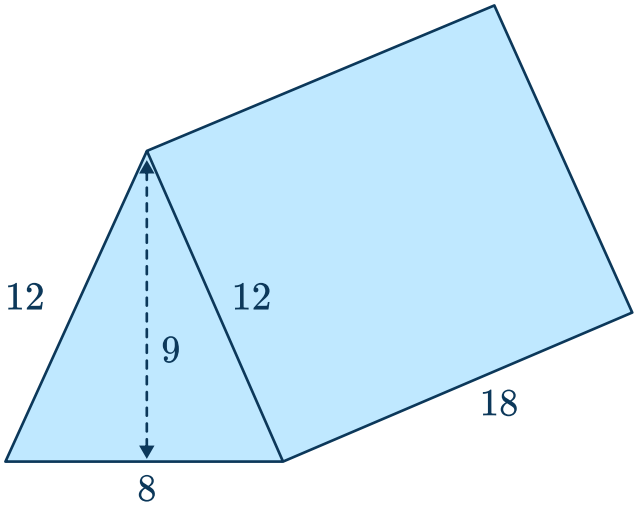
Answer

14 The total surface area is $240cm^2$. Find the missing dimension.



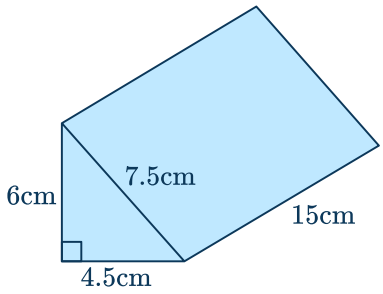
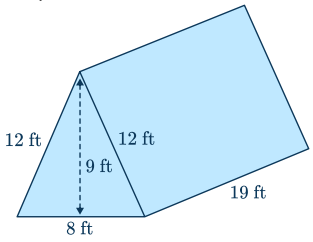
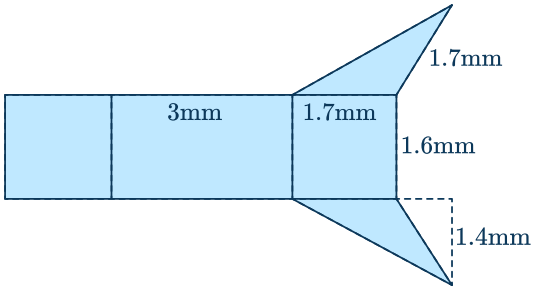
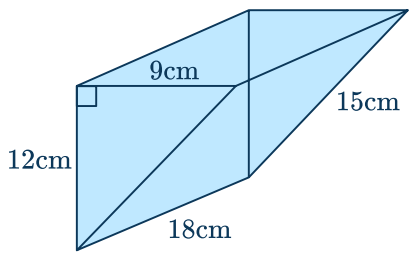
Answer

15 A toy store sells two different small tents. One is shown below, in inches. The other tent has dimensions that are twice as big. What is the difference between $inches^2$ of fabric needed for each tent?

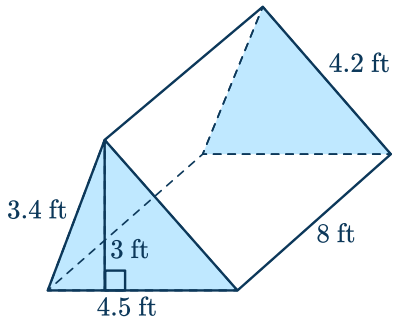
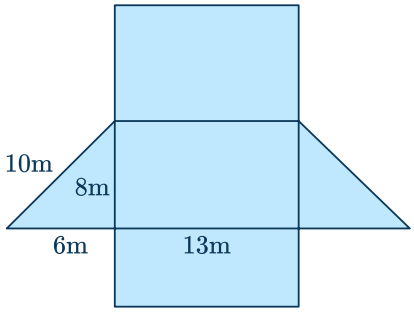
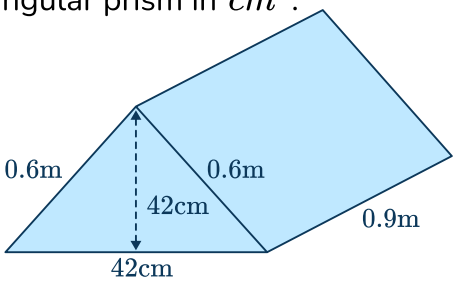
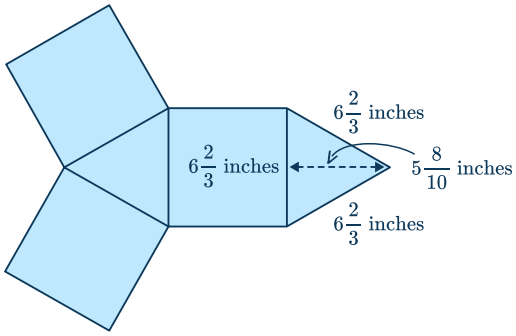


Answer

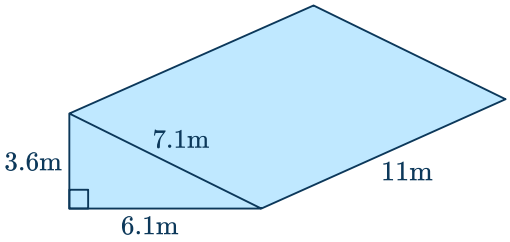
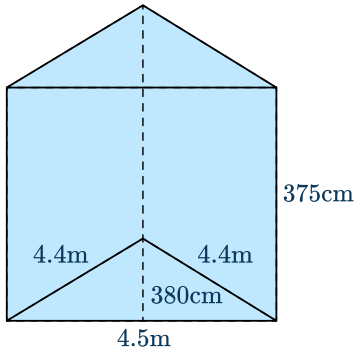
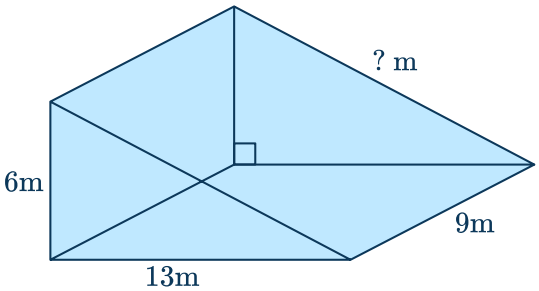
Answers

Question number	Question	Answers	Standard
1	Calculate the surface area of the triangular prism. 	Base: 6 x 4.5 x 0.5 = 13.5 Faces: 15 x 7.5 = 112.5 15 x 4.5 = 67.5 15 x 6 = 90 13.5 + 13.5 + 112.5 + 67.5 + 90 = **297**cm^2	6.G.A.4
2	Calculate the surface area of the triangular prism. 	Base: 8 x 9 x 0.5 = 36 Faces: 19 x 8 = 152 19 x 12 = 228 36 + 36 + 152 + 228 + 228 = **680**ft^2	6.G.A.4
3	Calculate the surface area. 	Base: 1.7 x 1.4 x 0.5 = 1.19 Faces: 1.7 x 1.6 = 2.72 3 x 1.6 = 4.8 1.19 + 1.19 + 2.72 + 4.8 + 4.8 = **14.7**mm^2	6.G.A.4
4	Calculate the surface area of the triangular prism. 	Base: 12 x 9 x 0.5 = 54 Faces: 18 x 15 = 270 18 x 12 = 216 18 x 9 = 162 54 + 54 + 270 + 216 + 162 = **756**cm^2	6.G.A.4

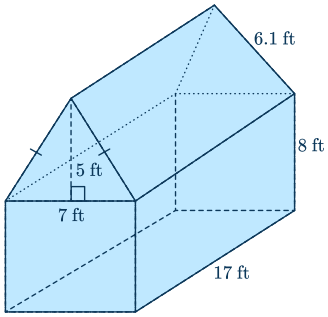
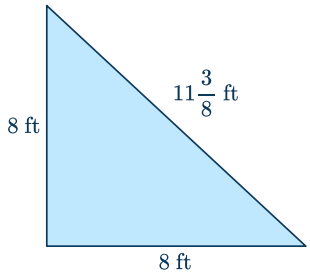
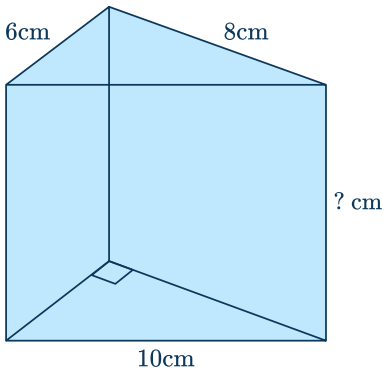
Surface Area of a Triangular Prism Worksheet | Grades 6 to 8

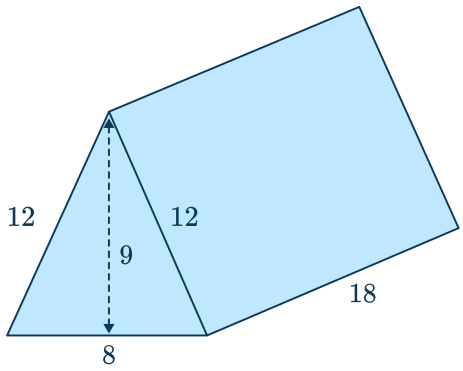
Question number	Question	Answers	Standard
5	Calculate the surface area. 	Base: 4.5 x 3 x 0.5 = 6.75 Faces: 8 x 4.5 = 36 8 x 4.2 = 33.6 8 x 3.4 = 27.2 6.75 + 6.75 + 36 + 33.6 + 27.2 = **110.3**ft^2	6.G.A.4
6	Below is a net of a triangular prism. Calculate the surface area. 	Base: 6 x 8 x 0.5 = 24 Faces: 13 x 6 = 78 13 x 8 = 104 13 x 10 = 130 24 + 24 + 78 + 104 + 130 = **360**m^2	6.G.A.4
7	Calculate the surface area of the triangular prism in cm^2. 	Base: 42 x 42 x 0.5 = 882 Faces: 90 x 60 = 5,400 90 x 42 = 3,780 882 + 882 + 5,400 + 5,400 + 3,780 = **16,344** cm^2	6.G.A.4
8	Below is a net of a triangular prism. Calculate the surface area. 	Base: $6\frac{2}{3}$ x $5\frac{8}{10}$ x $\frac{1}{2}$ = $19\frac{1}{3}$ Faces: $6\frac{2}{3}$ x $6\frac{2}{3}$ = $44\frac{4}{9}$ $19\frac{1}{3}$ + $19\frac{1}{3}$ + $44\frac{4}{9}$ + $44\frac{4}{9}$ + $44\frac{4}{9}$ = **172**cm^2	6.G.A.4

Surface Area of a Triangular Prism Worksheet | Grades 6 to 8

Question number	Question	Answers	Standard
9	Calculate the surface area of the triangular prism.  	Base: 3.6 x 6.1 x 0.5 = 10.98 Faces: 11 x 7.1 = 78.1 11 x 6.1 = 67.1 11 x 3.6 = 39.6 10.98 + 10.98 + 78.1 + 67.1 + 39.6 = **206.76**m^2	6.G.A.4
10	Calculate the surface area of the triangular prism in m^2.  	Base: 4.5 x 3.8 x 0.5 = 8.55 Faces: 3.75 x 4.4 = 16.5 3.75 x 4.5 = 16.875 8.55 + 8.55 + 16.5 + 16.5 + 16.875 = **66.975**m^2	6.G.A.4
11	The total surface area is 377.7m^2. Find the missing dimension.  	Base: 6 x 13 x 0.5 = 39 Faces: 9 x 13 = 117 9 x 6 = 54 39 + 39 + 117 + 54 + = 377.7m^2 249 + a = 377.7m^2 a = 128.7 a = ? x 9 **? = 14.3**m	6.G.A.4

Surface Area of a Triangular Prism Worksheet | Grades 6 to 8

Question number	Question	Answers	Standard
12	Helena is painting the roof of her garden shed. The paint costs $0.18 per square foot. How much money will Helena spend to paint the roof?  	Base: 7 x 5 x 0.5 = 17.5 Faces: 17 x 6.1 = 103.7 17.5 + 17.5 + 103.7 + 103.7 = 242.4ft^2 242.4 x 0.18 = **$43.63**	6.G.A.4
13	Below is a picture of Nevaeh's garden.  Neveah wants to add a 4 foot tall fence around the perimeter of the garden. How many feet² of fencing does Nevaeh need?	Faces: 8 x 4 = 32 $11\frac{3}{8}$ x 4 = $45\frac{1}{2}$ 32 + 32 + $45\frac{1}{2}$ = **$109\frac{1}{2}ft^2$**	6.G.A.4
14	The total surface area is 240 cm^2. Find the missing dimension.  	Base: 6 x 8 x 0.5 = 24 24 + 24 + a = 240cm^2 48 + a = 240cm^2 a = 192cm^2 a = (6 + 8 + 10) x ? a = 24 x ? 192 = 24 x ? **? = 8**cm	6.G.A.4

Question number	Question	Answers	Standard
15	A toy store sells two different small tents. One is shown below, in inches. The other tent has dimensions that are twice as big. What is the difference between $inches^2$ of fabric needed for each tent?  	Base: 8 x 9 x 0.5 = 36 Faces: 18 x 8 = 144 18 x 12 = 216 36 + 36 + 144 + 216 + 216 = 648 $inch^2$ Base: 16 x 18 x 0.5 = 144 Faces: 36 x 16 = 576 36 x 24 = 864 144 + 144 + 576 + 864 + 864 = 2,592 $inch^2$ 2,592 – 648 = **1,944** $inch^2$	6.G.A.4

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