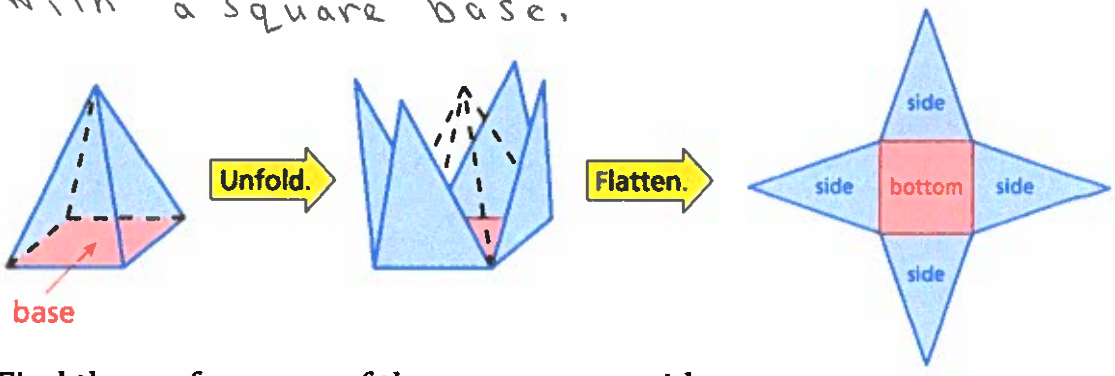
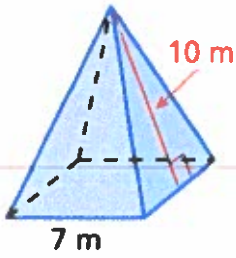
Surface Area of Pyramids
8.3

Essential Question: How can you use a net to find the surface area of a pyramid?

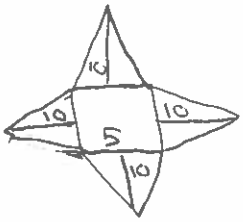
Net of a Square Pyramid A square pyramid is a pyramid with a square base.



Find the surface area of the square pyramid



SA = 189 m^2



Bottom = 7 · 7 = 49

side = $\frac{10(7)}{2} = \frac{70}{2} = 35$

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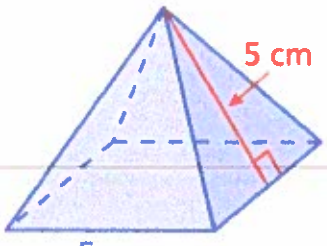

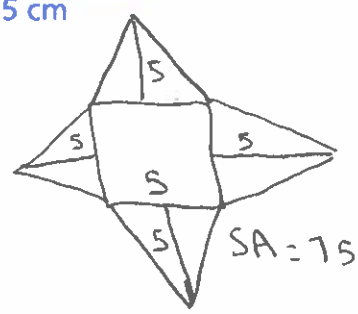

SA = 75 cm^2

Bottom = 5 · 5 = 25

side = $\frac{5 \cdot 5}{2} = \frac{25}{2} = 12.5$

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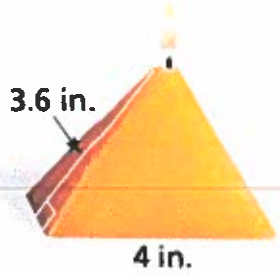

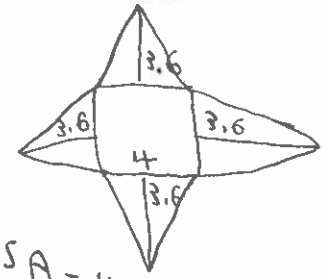

SA = 44.8 in^2

Bottom = 4 · 4 = 16

side = $\frac{4(3.6)}{2} = \frac{14.4}{2} = 7.2$

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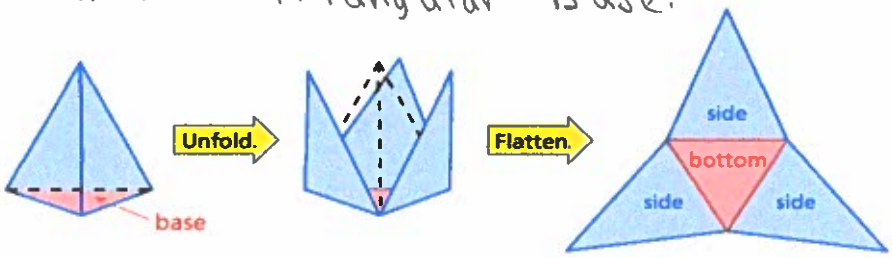
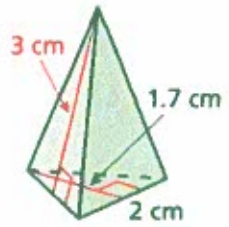
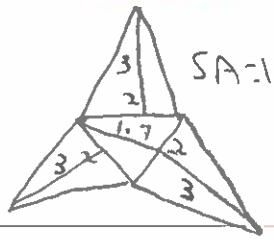
Net of a Triangular Pyramid

A triangular pyramid is a pyramid with a triangular base.



Find the surface area of the triangular pyramid.





SA = 10.7 cm²

Bottom = $\frac{2(1.7)}{2} = \frac{3.4}{2} = 1.7$

side = $\frac{3.2}{2} = \frac{6}{2} = 3$

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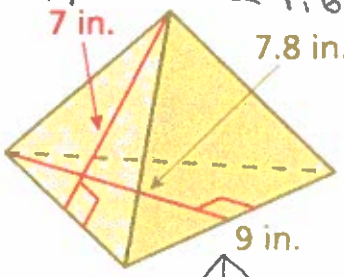
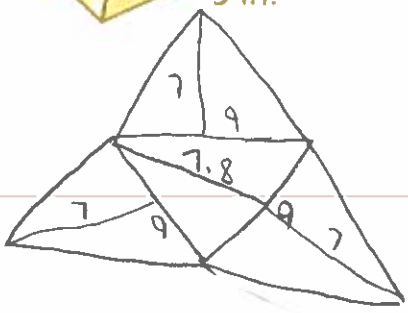
SA = 129.6 in²





Bottom = $\frac{9(1.8)}{2} = \frac{70.2}{2} = 35.1$

side = $\frac{7.9}{2} = \frac{63}{2} = 31.5$

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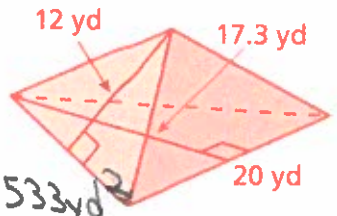
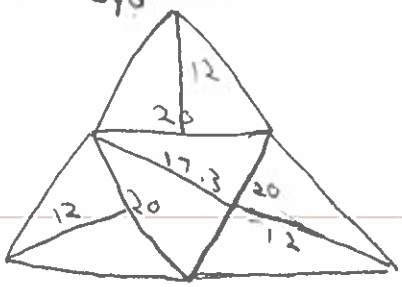


SA = 533 yd²



Bottom = $\frac{20(17.3)}{2} = \frac{346}{2} = 173$

side = $\frac{12(20)}{2} = \frac{240}{2} = 12$

side = $\frac{12(20)}{2} = \frac{240}{2} = 120$

side = $\frac{12(20)}{2} = \frac{240}{2} = 12$