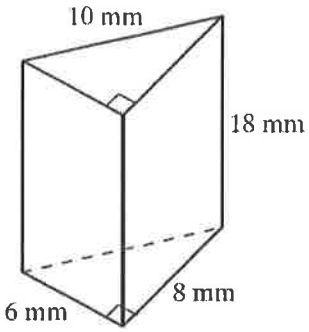
Name: Key

Date: _____ Period: _____

Surface Area of Triangular Prisms

Use the given prisms to answer the questions on the right.



a) What are the dimensions of the base of this prism?

$l = 6\text{mm}$

$w = 8\text{mm}$

b) What is the area of the base?

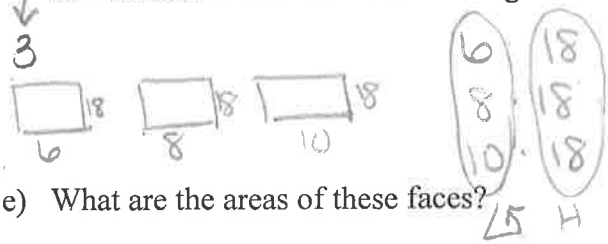
$\frac{b \cdot h}{2} = \frac{6 \cdot 8}{2} = 24\text{mm}^2$

c) How many faces have the same area?

2, so $24 \cdot 2 = 48\text{mm}^2$

d) How many other faces are there? What are the dimensions of each of the remaining faces?

3

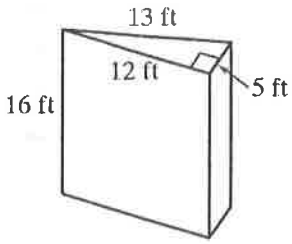


e) What are the areas of these faces?

108, 144, 180

f) What would be the total surface area of the prism?

480mm^2



a) What are the dimensions of the base of this prism?

$l = 12\text{ ft}$

$w = 5\text{ ft}$

b) What is the area of the base?

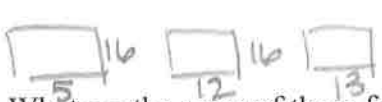
$\frac{b \cdot h}{2} = \frac{12 \cdot 5}{2} = 30\text{ ft}^2$

c) How many faces have the same area?

2, so $30 \times 2 = 60\text{ ft}^2$

d) How many other faces are there? What are the dimensions of each of the remaining faces?

3



$5 \cdot 16$

$12 \cdot 16$

$13 \cdot 16$

e) What are the areas of these faces?

80 192 208

f) What would be the total surface area of the prism?

540 ft^2

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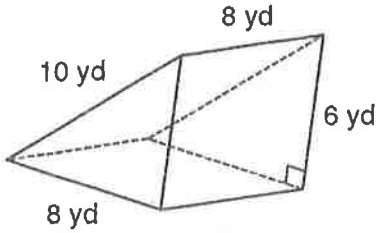


a) What are the dimensions of the base of this prism?

l = 6
w = 8

b) What is the area of the base?

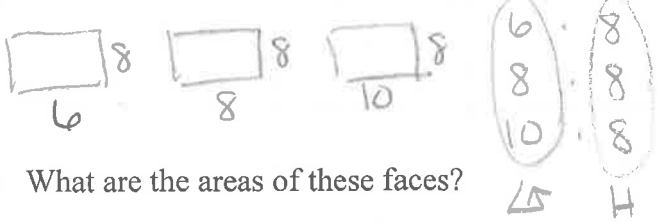
$\frac{6 \cdot 8}{2} = 24$ yd^2

c) How many faces have the same area?

2, so $24 \cdot 2 = 48$

d) How many other faces are there? What are the dimensions of each of the remaining faces?

3



e) What are the areas of these faces?

48 64 80

f) What would be the total surface area of the prism?

240 yd^2