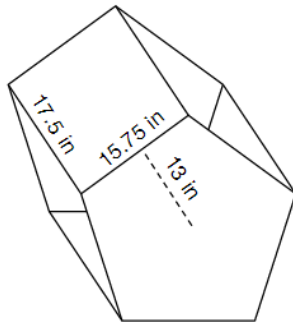
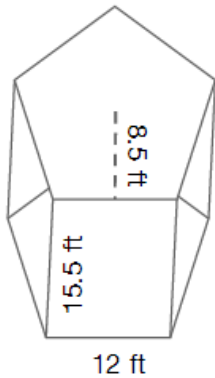


Find the surface area of a pentagonal prism by finding the area of a 2D net, Practice Set A

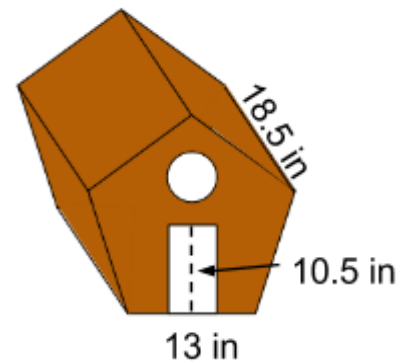
Name:

Date:

1. Draw a net for each pentagonal prism. Then, calculate the surface area.



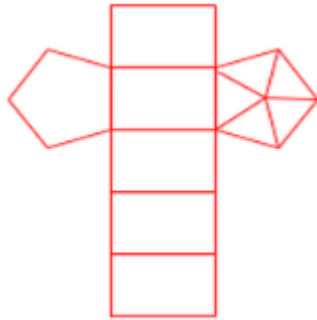
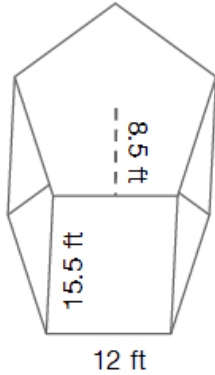
2. Troy is painting a birdhouse for his backyard. Determine how much brown paint he will need to paint the entire birdhouse if the circle has an area of 18 in^2 and the rectangle has an area of 52.5 in^2 .



Find the surface area of a pentagonal prism by finding the area of a 2D net, Practice Set A

Answer Key

1. Draw a net for each pentagonal prism. Then, calculate the surface area.

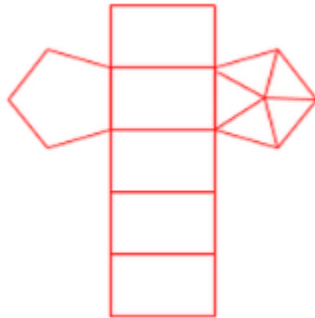
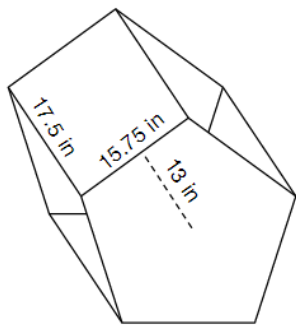


$$\text{Surface area} = 1,440 \text{ ft}^2$$

$$\text{Area of rectangle} = (15.5 \text{ ft})(12 \text{ ft}) = 186 \text{ ft}^2$$

$$\text{Area of triangle} = \frac{1}{2}bh = \frac{1}{2}(12 \text{ ft})(8.5 \text{ ft}) = 51 \text{ ft}^2$$

$$\text{Surface area} = 5(186 \text{ ft}^2) + 10(51 \text{ ft}^2) = 1,440 \text{ ft}^2$$



$$\text{Surface area} = 2,401.875$$

in²

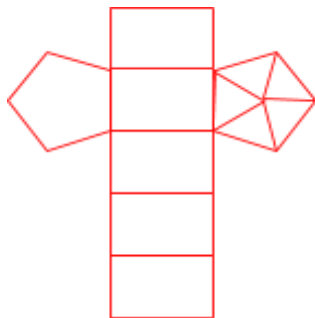
$$\text{Area of rectangle} = (17.5 \text{ in})(15.75 \text{ in}) = 275.625 \text{ in}^2$$

$$\text{Area of triangle} = \frac{1}{2}bh = \frac{1}{2}(15.75 \text{ in})(13 \text{ in}) = 102.375 \text{ in}^2$$

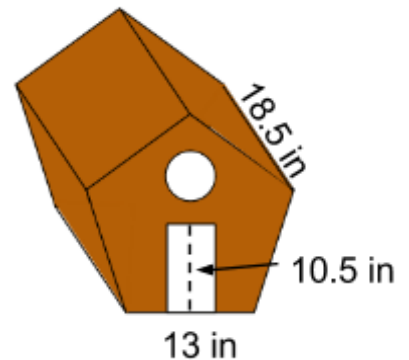
$$\text{Surface area} = 5(275.625 \text{ in}^2) + 10(102.375 \text{ in}^2) =$$

$$2,401.875 \text{ in}^2$$

2. Troy is painting a birdhouse for his backyard. Determine how much brown paint he will need to paint the entire birdhouse if the circle has an area of 18 in² and the white rectangle has an area of 52.5 in². Troy will need 1,841.5 in² of paint.



$$\text{Area of rectangle} = (18.5 \text{ in})(13 \text{ in}) = 240.5 \text{ in}^2$$





$$\text{Area of triangle} = \frac{1}{2}bh = \frac{1}{2}(10.5 \text{ in})(13 \text{ in}) = 68.25 \text{ in}^2$$

$$\text{Surface area} = 5(240.5 \text{ in}^2) + 10(68.25 \text{ in}^2) - 18 \text{ in}^2 - 52.5 \text{ in}^2 = 1,841.5 \text{ in}^2$$