Name: _____ Key _____ **Final Review #4**
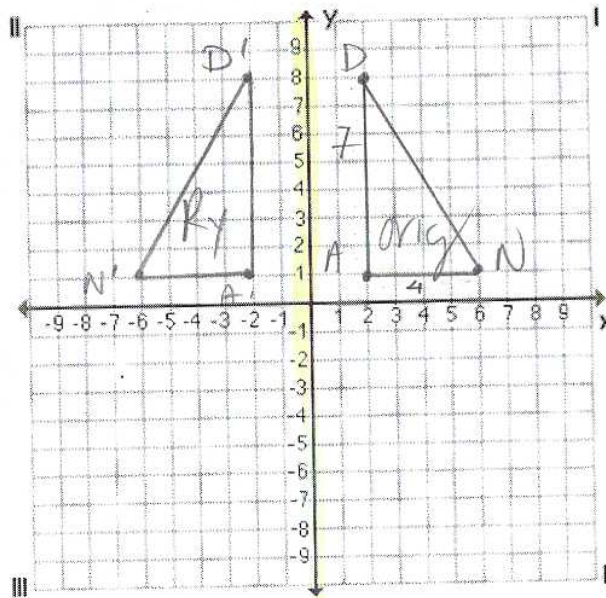
1) Graph triangle DAN: D(2, 8); A(2, 1); N(6,1)

(x,y)

2) Then find the length of line segment DN. Round your answer to the nearest the nearest hundredth.

$$a^2 + b^2 = c^2$$
$$4^2 + 7^2 = c^2$$
$$16 + 49 = c^2$$
$$\sqrt{65} = \sqrt{c^2}$$
$$8.06 = c$$

3) Use the graph of triangle DAN, reflect triangle DAN over the y-axis and label the new triangle as D'A'N'.
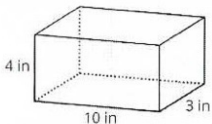
D'(-2 , 8), A'(-2 , 1), N'(-6 , 1)

***Add the y-values of triangle D'A'N'. Type this answer in for question 3.   10

4) Find the area of triangle DAN.

$$A = \frac{1}{2}bh$$
$$= \frac{1}{2}(4)(7)$$
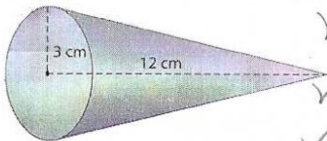$$A = 14u^2$$

5) Find the surface area of the rectangular prism below.

$$SA = 2lh + 2wh + 2lw$$
$$= 2(10)(4) + 2(3)(4) + 2(10)(3)$$
$$= 80 + 24 + 60$$
$$SA = 164 in^2$$

5) Find the volume of the cone below. Use the pi symbol (π). Round your answer to the nearest tenth.
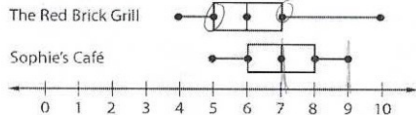

$$V = \frac{1}{3}Bh$$
$$V = \frac{1}{3}\pi r^2 h$$
$$V = \frac{1}{3}\pi (3)^2 (12)$$
$$V = 36\pi$$
$$V = 113.1 cm^3$$

Use the box and whisker plot for questions 7 & 8.

Entrée Prices

The Red Brick Grill

Sophie's Café

7) What is the interquartile of the data set for The Red Brick Grill?

$$IQR = 7 - 5 = 2$$

8) What percentage of the entree prices are between 7 - 10 dollars at Sophie's Cafe? Type in the number only for the answer.
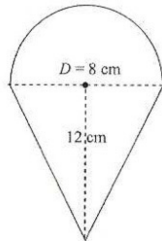
50%

9) Simplify: $\sqrt{112}$

$$\sqrt{16} \cdot 7$$

$$4\sqrt{7}$$

***then type your answer as 52 in the answer column in Google Sheets, if your simplified answer is $5\sqrt{2}$

10) Find the area of the composite shape below. Use the π key on your calculator. Round your answer to the nearest hundredth.

$D = 8$ cm

12 cm

$$A = \frac{\pi r^2}{2} = \frac{\pi (4)^2}{2}$$
$$A_{semi} = 25.13 cm^2$$

$$A_\triangle = \frac{1}{2}bh$$
$$= \frac{1}{2}(8)(12)$$
$$A = 48 cm^2$$

add

$$73.13 cm^2$$

11) Solve for x:

$$2(3x - 1) = 4x - 8$$
$$6x - 2 = 4x - 8$$
$$-4x \qquad -4x$$
$$2x - 2 = -8$$
$$+2 \qquad +2$$
$$\frac{2x}{2} = \frac{-6}{2}$$
$$x = -3$$