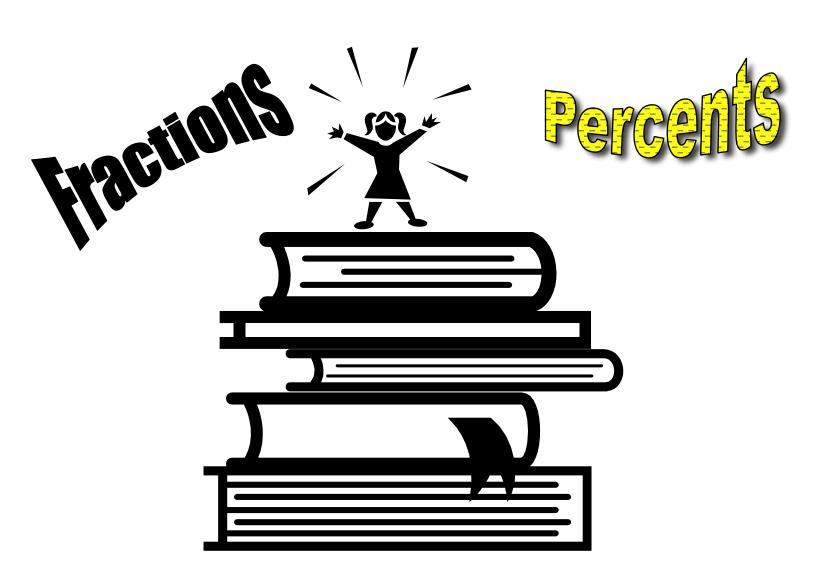
7th Grade Summer Packet

Each week this summer please complete one of the following review sheets. Please show as much work as you can for each problem. This will help if you are asked how you got the answer. Please check your answers with the answer sheet at the back of this packet.

These review sheets will be collected the first week of school and will help prepare you for 7^{th} grade. Have a great summer!



Formula Card:

Circle -
$$A = \pi \cdot r^2$$
 $C = \pi \cdot d$ $\pi \approx 3.14$

$$C = \pi \cdot d \qquad \pi \approx 3.14$$



Rectangle - $A = l \cdot w$ P = l + l + w + w



Triangle - $A = \frac{1}{2}b \cdot h$ $P = sum \ of \ all \ of \ the \ sides$



Parallelogram - $A = b \cdot h$ $P = sum \ of \ all \ of \ the \ sides$



Rectangular prism - $V = l \cdot w \cdot h$

Examples of different problems and the work that should accompany the problems:

Ex. 1)
$$\frac{2}{3} + \frac{4}{5} =$$

$$= \frac{10}{15} + \frac{12}{15}$$

$$= \frac{22}{15}$$

a radius of 5 in.
$$A = \pi r^2$$

$$A = \pi \cdot 5^2$$

$$A = 25\pi \ in.^2 \ or \ 78.5 \ in.^2$$

Ex. 3)
$$3\frac{1}{4} - 5\frac{2}{3} =$$

$$= \frac{13}{4} - \frac{17}{3}$$

$$= \frac{39}{12} - \frac{68}{12}$$

$$= -\frac{29}{12}$$

$$= -2\frac{5}{12}$$

Please show any work you have done to complete each problem.

Show your work! Show your work! Show your work!

Name	
Name	

Summer Review - Week



Complete each of the problems below. Please show all of your work.

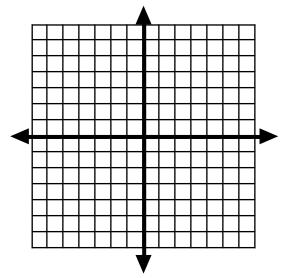


- 1) When they go to the movies the Hernandez family uses the formula, 4.50C + 9.75A = T, to determine the total cost (T) of their evening.
 - It costs \$4.50 for each of the children's tickets and \$9.75 each, for the adults.
 - If there are three adults going and four children, how much will it cost the Rodriguez family to go to the movies tonight?

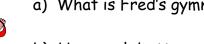
2) List the quadrant or axis that each point is located in. Then graph each point on the coordinate plane.

Coordinate	Quadrant
pair	or Axis
(4, 0)	
(-2, -2)	
(1, 1)	
(2, 4)	
(-3, -2)	
(-5, 1)	
(-3, -1)	
(-1, -2)	





3) Fred received the following scores for his gymnastics routine: 8.5, 7.8, 8.0, 6.8, 7.1, 7.6. To figure out his score, the judges drop the highest and lowest score and then average the rest of his scores.



- a) What is Fred's gymnastics score for the meet?
- b) How much better or worse would he have done if the judges did not drop the highest and lowest scores?

Show your work! Show your work! Show your work!

4) Jeremy has saved \$11,000 to go towards the purchase of his new car. If the new Civic costs \$17,500 and the sales tax is 8%, how much more money does Jeremy need?





- 5) Find the LCM of the following sets of numbers.
 - a) 8 and 12
- b) 20 and 30

c) 7 and 35

(Reduce **BEFORE** you multiply across!)

6)
$$\frac{27}{36} \cdot \frac{18}{9} =$$

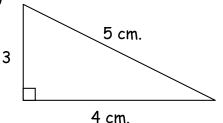
7)
$$\frac{55}{44} \cdot \frac{44}{66} =$$

8)
$$\frac{15}{18} \cdot \frac{30}{42} =$$

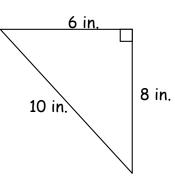
9) Find the area and perimeter of the following triangles.



a)



b)



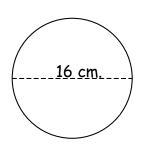
A =

A =

P =

P =

10) Find the area and circumference of the circle.



Name

Summer Review - Week #2

Complete each of the problems below. Please show all of your work.



- 1) Find the GCF of the following sets of numbers.
 - a) 36 and 100
- b) 54 and 72
- c) 80 and 180

(Reduce **BEFORE** you multiply across!)

2)
$$\frac{20}{76} \cdot \frac{38}{15} =$$

3)
$$\frac{16}{50} \cdot \frac{36}{48} =$$

4)
$$\frac{10}{15} \cdot \frac{30}{46} =$$

5) Georgia received the following scores for her practice ACT test: 28, 31, 24, 28, 31, 28.



- a) What is the mean of her practice exam scores?
- b) What is the median of her practice exam scores?
- c) What is the mode of her practice exam scores?



d) What is the range of her practice exam scores?



- 6) If k = -3, evaluate the following:
 - a) 2k + 7(9)

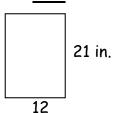
b) $5 + k^2 - 12$

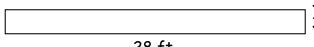
c) $12 + 6 \cdot k$

7) Francesca has five green Cooper shirts, 3 black shirts, a gold shirt, and 8 white shirts. If she chooses randomly, what is the probability she will pick a black shirt to wear on Friday?



Find the **<u>sum</u>** of the *area* **<u>and</u>** *perimeter* of the following figures:





28 ft.

Area =

Perimeter =

Sum =



10)
$$1\frac{3}{4} + 5.7 =$$

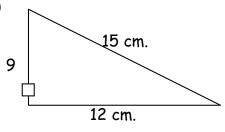
11)
$$4.8 + 7\frac{2}{5} =$$

12)
$$3.4 - 15\frac{7}{10} =$$



13) Find the area and perimeter of the following triangles.

a)





24 in.

10 in.

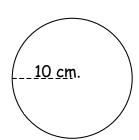
A =

P =



14) Find the area and circumference of the circle.





Name_

Summer Review - Week #



Complete each of the problems below. Please show all of your work. 1) Simplify:

a)
$$6\frac{3}{4} - 10\frac{5}{9}$$

b)
$$3\frac{3}{11} + 7\frac{1}{11}$$

c)
$$3\frac{1}{3} - 4\frac{7}{8}$$

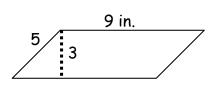


d) $3\frac{1}{6} \cdot 1\frac{3}{10}$

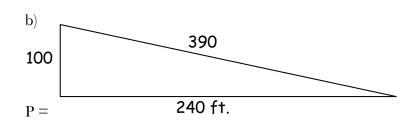
e)
$$9\frac{2}{7} \div 3\frac{1}{2}$$

f)
$$2\frac{1}{5} \cdot 3\frac{5}{7}$$

2) Find the area and perimeter of the figures.



P =



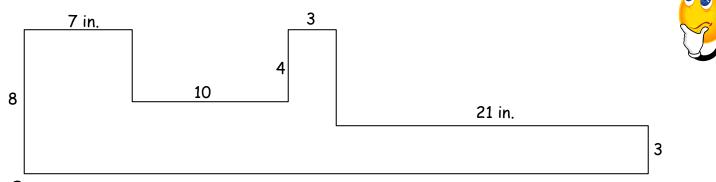
A =

$$A =$$

3) Find the **sum** of the <u>perimeter and area</u> of the shape.

$$P =$$

$$A =$$



- 4) Place the correct symbol in between each set of fractions. (<,>, or =)Change to common denominators first!!!

- c) $\frac{2}{9}$ $\frac{2}{8}$



e) $\frac{2}{3}$ $\frac{3}{4}$

f) $\frac{6}{7}$ $\frac{3}{4}$

- g)) $4\frac{3}{6}$ $5\frac{9}{18}$ h) $1\frac{2}{3}$ $1\frac{3}{5}$
- 5) George and his two friends are going to the movies. George has 3.4 lbs. of licorice to snack on while Jill has $2\frac{2}{5}$ lbs and Ben has $\frac{9}{10}$ of a pound. If they combine all of their licorice how much do they have together?



6) Simplify the following:

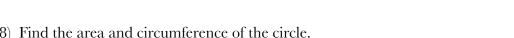
a)
$$7 + 2 \cdot 5$$

b)
$$4-16 \div 8$$

c)
$$7 + 6^2$$

d)
$$3^2 + 9 \cdot 5$$

7) Liam has bought 48 feet of fencing that he will use to build a pig pen. List 6 different dimensions he could create for his pen using the fencing he bought.

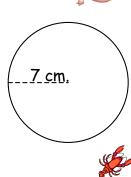




8) Find the area and circumference of the circle.

$$A =$$

$$C =$$



Show your work! Show your work! Show your work!



Summer Review - Week





Complete each of the problems below. Please show all of your work.

- 1) Place the correct symbol in between each set of fractions. (<, >, or =)
 - Change to common denominators first!!!

a)
$$\frac{2}{8}$$
 $\frac{3}{6}$

b)
$$\frac{1}{6}$$
 $\frac{1}{9}$

c)
$$\frac{4}{7}$$
 $\frac{4}{3}$

d)
$$\frac{3}{8}$$
 $\frac{15}{20}$

e)
$$\frac{24}{27}$$
 $\frac{8}{18}$

f)
$$\frac{1}{4}$$
 $\frac{3}{8}$

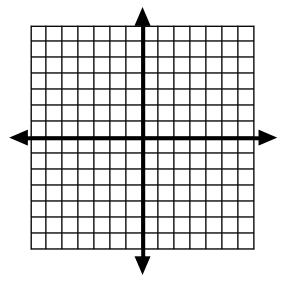
g))
$$-7\frac{2}{3}$$
 $-7\frac{3}{4}$ h) $3\frac{3}{8}$ $3\frac{5}{24}$

h)
$$3\frac{3}{8}$$
 $3\frac{5}{24}$

2) List the quadrant or axis that each point is located in. Then graph each point on the coordinate plane.

Coordinate	Quadrant
pair	or Axis
(2, -2)	
(0, -4)	
(-1, 3)	
(0, 6)	
(-1, -5)	
(-3, 3)	
(-1, -3)	
(-3, 0)	





3) Simplify the following:

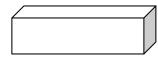
a)
$$-4 + 6(-7)$$

b)
$$8^2 - 3 \cdot 2$$

a)
$$-4 + 6(-7)$$
 b) $8^2 - 3 \cdot 2$ c) $(12 - 2)^2 - 8$

d)
$$156 - 8(2)$$

4) Bill knows that the volume of a rectangular prism is 400 cm^3 . The box is labeled with the length as 6.5 cm and the width as 1.5 cm. What is the approximate height of the box?



Show your work! Show your work! Show your work!

5) Lucy has 4 black outfits, 5 blue outfits, a white outfit, and a green one to choose from.



b) What is the probability she randomly chooses a blue outfit to wear?

c) What is the probability she randomly chooses a black or green outfit to wear?



6) Simplify:

a)
$$2\frac{1}{6} - 5\frac{1}{4}$$

b)
$$-4\frac{1}{7} - 9\frac{2}{7}$$

c)
$$6\frac{4}{9} - \frac{2}{3}$$

d)
$$16 \cdot 2\frac{1}{4}$$

$$e) \frac{4}{9} \div \frac{8}{9}$$

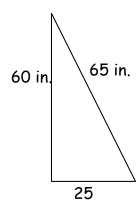
f)
$$6\frac{1}{2} \cdot 2\frac{2}{7}$$



7) Find the area and perimeter of the triangle.

$$A =$$

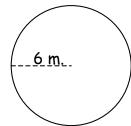
$$P =$$



8) Find the area and circumference of the circle.

$$A =$$

$$C =$$



Show your work! Show your work!

Name _____

Summer Review - Week # 5

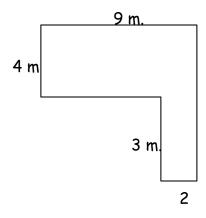
Complete each of the problems below. Please show all of your work.



1) Beth has brought $1\frac{3}{7}$ lbs. of strawberries to her friend Lisa's house to make pies.

How many more lbs. do they need if the recipe calls for $5\frac{2}{3}$ lbs.?

2) Find the area and perimeter of the figure.



- 3) Find the GCF of each set of numbers.
 - a) 12, 24, 40

- b) 9, 12, 15
- c) 14, 22, 24



4) Complete each of the problems.

a)
$$\frac{3}{4} \cdot \frac{16}{18} =$$

b)
$$1\frac{1}{3} \div 3\frac{2}{3} =$$

c)
$$3\frac{3}{4} + 5\frac{1}{2} =$$

- 5) Find the prime factorization of the following numbers.
 - a) 80

b) 12

c) 45



Show your work! Show your work!

- 6) Simplify the following:
 - a) -41-22(2)

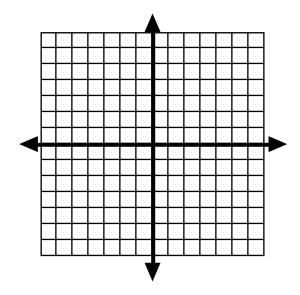
- b) $3^2 5 \cdot 2$
- c) $(3-7)^2+13$

8) List the quadrant or axis that each point is located in. Then graph each point on the

coordinate plane.

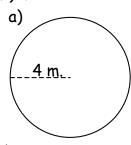
Coordinate	Quadrant
pair	or Axis
(5, -2)	
(-3, -4)	
(2, 3)	
(3, 6)	
(-4, -5)	
(-1, 3)	
(-4, -3)	
(-5, 0)	



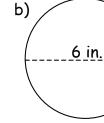


9) Find the area and circumference of the circles.

C =



A =



A =

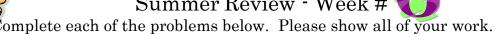


C =

Show your work! Show your work!

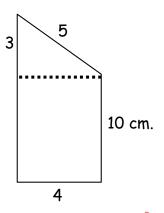
	•		
Nama			
Name			
I TOTAL	 	 	

Summer Review - Week #



1) Ewa bought $7\frac{1}{8}$ lbs. of cashews for \$3.50 per lb. How much did she spend?

2) Find the area and perimeter of the figure.



- 3) Find the LCM of each set of numbers.
 - a) 2, 3, 5

b) 5, 6, 8

c) 8, 9, 12



4) Complete each of the problems.

a)
$$\frac{3}{7} - 2\frac{1}{3} =$$

b)
$$3\frac{1}{5} \cdot 5\frac{1}{9} =$$

c)
$$-4\frac{2}{8} + 3\frac{1}{3} =$$

5) What number does each prime factorization represent?



b) $2 \cdot 11^2$

c) $3^2 \cdot 7$



6) Simplify the following:

a)
$$-5 + 4(9)$$

b)
$$4^2 + 9 \cdot 8$$

c)
$$(11-14)^2-6$$

Show your work! Show your work!

7) If y = -4, evaluate the following:

a)
$$2y + 7$$

b)
$$y - 8$$



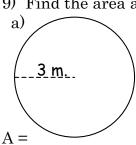
b) What is the mode of the number of times he fumbled?

c) What is the range of the number of times he fumbled?

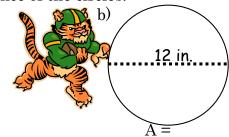
d) What is the mean of the number of times he fumbled?



9) Find the area and circumference of the circles.



C =



C =

Simplify the following:

10)
$$\frac{54}{38} \cdot \frac{18}{27} =$$

11)
$$\left(\frac{20}{22}\right)\left(\frac{11}{65}\right) =$$

12)
$$\frac{5}{6} \div \frac{4}{6} =$$





Summer Review - Week # 7 Complete each of the problems below. Please show all of your work.



2)
$$\frac{5}{7} - \frac{3}{4} =$$

3)
$$3\frac{3}{5} - 7\frac{1}{8} =$$

4) Find the LCM of the following numbers:

5) Find the GCF of the following numbers:

Simplify the following:

6)
$$\frac{30}{20} \cdot \frac{18}{27} =$$

7)
$$\left(\frac{30}{22}\right)\left(\frac{12}{25}\right) =$$

8)
$$\frac{1}{7} \div \frac{2}{14} =$$

9) If k = -9, evaluate the following:

c)
$$\frac{k+9}{6}$$

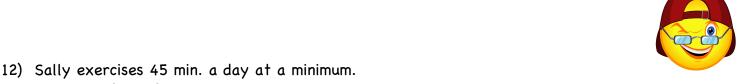
d)
$$2k^2 - 8$$



10) Find the volume of the rectangular prism.



11) Susan has earned \$38 babysitting. 30% of her earnings go into the bank every month. How much of her \$38 should she put in the bank?



Which of the following inequalities represents how much she exercises?

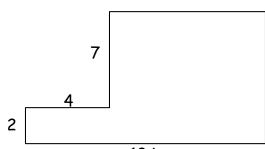
- a) $x \le 45$
- **b)** $x \ge 45$

Graph the one you chose.

- c) x < 45
- d) x > 45

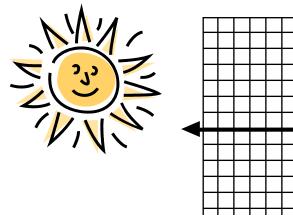


13) Find the perimeter and area of the figure.



14) List the quadrant or axis that each point is located in. Then graph each point on the coordinate plane.

Coordinate	Quadrant
pair	or Axis
(4, -3)	
(-2, -2)	
(1, 4)	
(2, 4)	
(-3, -3)	
(-5, 2)	
(-3, -1)	
(-1, 2)	



- 15) Place the correct symbol in between each set of fractions. $(\langle,\rangle,\text{ or }=)$ Change to common denominators first!!!

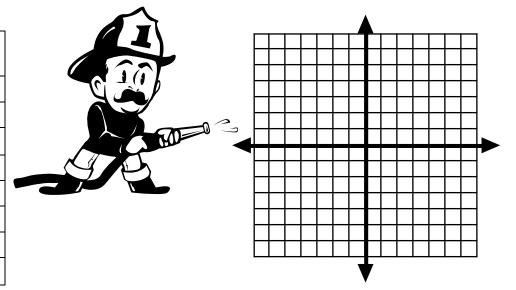
Name	

Summer Review - Week #

Complete each of the problems below. Please show all of your work.

1) List the quadrant or axis that each point is located in. Then graph each point on the coordinate plane.

Quadrant
or Axis



2) Simplify:

a)
$$2\frac{2}{3} - 3\frac{3}{4}$$

b)
$$1\frac{3}{8} + 5\frac{7}{8}$$

c)
$$4\frac{1}{9} - 9\frac{2}{3}$$

- 3) Place the correct symbol in between each set of fractions. (<,>, or =)
 - Change to common denominators first!!!

a)
$$\frac{5}{8}$$
 $\frac{1}{2}$

b)
$$\frac{1}{6}$$
 $\frac{1}{12}$

c)
$$\frac{2}{7}$$
 $\frac{4}{14}$

d)
$$\frac{20}{24}$$
 $\frac{5}{6}$

e)
$$\frac{8}{12}$$
 $\frac{7}{9}$

f)
$$\frac{2}{3}$$
 $\frac{20}{30}$

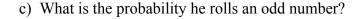
g))
$$-2\frac{3}{5}$$
 $-1\frac{4}{7}$ h) $2\frac{5}{7}$ $2\frac{4}{5}$

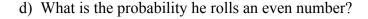
h)
$$2\frac{5}{7}$$
 $2\frac{4}{5}$

4) Barry has one six sided dice numbered 1-6 that he rolls.

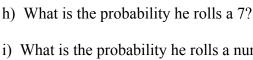


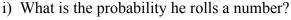
- a) What is the probability he rolls a 5?
- b) What is the probability he rolls a 3 or a 5?

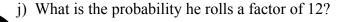


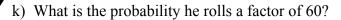


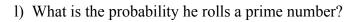
- e) What is the probability he rolls a factor of 6?
- f) What is the probability he rolls a factor of 39?
- g) What is the probability he rolls a factor of 17?













m) What is the probability he does NOT roll a prime number?



5) Simplify the following:

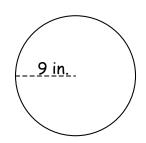
a)
$$3 + 2(9)$$

b)
$$9^2 - 7 \cdot 2$$

b)
$$9^2 - 7 \cdot 2$$
 c) $(3-14)^2 + 12$

d)
$$17-15(-4)$$

6) Find the **area** of the circle.



7) Find the *circumference* of the circle.





Summer Review - Week #

Complete each of the problems below. Please show all of your work.

- Simplify the following: 1)
- a) -14+7(4) b) $7^2-2\cdot 3$ c) $(92-82)^2+8$ d) -18-2(6)

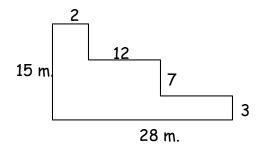
- Find the LCM of the following sets of numbers.
 - a) 6 and 8

9 and 15 b)

c) 5 and 6

3) Find the area and perimeter of the figure.





- Find the GCF of the following sets of numbers.
 - 20 and 75 a)

- b) 20 and 46
- c) 16 and 48



Jerry ate the following number of sandwiches for each of the last five weeks: 13, 13, 12, 12, and 6.

Find each of the following:



Mean =

Median =

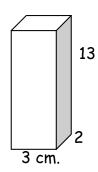
Mode =

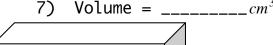
Range =



Find the volume of each of the rectangular prisms.

(2) Volume - cm^3 7) Volume = ______





3 4 cm. 15 cm.



Complete each of the following problems:

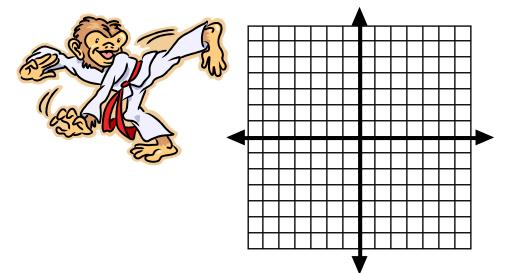
8)
$$\frac{5}{6} + \frac{3}{7} =$$

9)
$$\frac{7}{12} + \frac{1}{5} =$$

10)
$$\frac{1}{36} - \frac{1}{24} =$$

11) List the quadrant or axis that each point is located in. Then graph each point on the coordinate plane.

Coordinate	Quadrant
pair	or Axis
(4, -2)	
(-2, -4)	
(1, 3)	
(2, 6)	
(-3, -5)	
(-5, 3)	
(-3, -3)	
(-1, 0)	



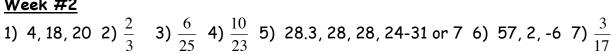
Answer Key

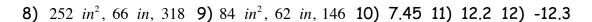
Week #1

1) \$47.25 2) x-axis, Q3, Q1, Q1, Q3, Q2, Q3, Q3 3) 7.63, no difference 4) \$7900

5) 24, 60, 35 6) $\frac{3}{2}$ 7) $\frac{5}{6}$ 8) $\frac{25}{42}$ 9) 6 cm², 12 cm, 24 in², 24 cm 10) 64 π cm², 16 π cm

Week #2



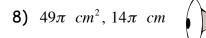


13) 54 cm², 36 cm, 120 in², 60 in **14)** 100π cm², 20π cm

Week #3

$$\overline{\mathbf{1)} -3\frac{29}{36}}, 10\frac{4}{11}, -1\frac{13}{24}, 4\frac{7}{60}, 2\frac{32}{49}, 8\frac{6}{35} \mathbf{2)} 28 in, 27 in^2, 730 ft, 12000 ft^2 \mathbf{3)} 103 in, 183 in^2, 286$$

4) \langle , \rangle , \langle , =, \langle , \rangle , \langle , \rangle 5) 6.7 lbs. 6) 17, 2, 43, 54 7) answers will vary, one option is 1×23





1) <, >, <, <, >, <, >, >, 2) Q4, y-axis, Q2, y-axis, Q3, Q2, Q3, x-axis 3) -46, 58, 92, 140

4) 41.03 cm 5)
$$\frac{4}{11}$$
, $\frac{5}{11}$, $\frac{5}{11}$ 6) $-3\frac{1}{12}$, $-13\frac{3}{7}$, $5\frac{7}{9}$, 36 , $\frac{1}{2}$, $14\frac{6}{7}$ 7) 750 in^2 , 150 in

8) $36\pi m^2$, $12\pi m$

Week #5

1)
$$4\frac{5}{21}$$
 lbs 2) 60 m^2 , 25 m 3) 4, 3, 2 4) $\frac{2}{3}$, $\frac{4}{11}$, $9\frac{1}{4}$ 5) $2^4 \cdot 5$, $2^2 \cdot 3$, $3^2 \cdot 5$ 6) -85, -1, 29

7) 33, -18, 79 8) Q4, Q3, Q1, Q1, Q3, Q2, Q3, y-axis 9) 16π m^2 , 8π m, 9π in^2 , 6π in





Week #6

- 1) \$24.94 2) 46 cm^2 , 32 cm 3) 30, 120, 72 4) $-1\frac{19}{21}$, $16\frac{16}{45}$, $-1\frac{1}{3}$ 5) 150, 242, 63
- 6) 31, 88, 3 7) -1, -12, 20 8) 2.5, 1, 1-9 or 8, 3.5 9) 9π m^2 , 6π m, 36π in^2 , 12π in 10) $\frac{18}{19}$
- 11) $\frac{2}{5}$ 12) $1\frac{1}{4}$

Week #7

- 1) $1\frac{1}{20}$ 2) $-\frac{1}{28}$ 3) $-3\frac{21}{40}$ 4) 63, 45, 26, 12 5) 5, 12, 10, 30 6) 1 7) $\frac{36}{55}$ 8) $3\frac{1}{2}$
- 9) -23, 24, 0, 154 10) 49.5 in³ 11) \$11.40 12) b 13) 38 in, 80 in²
- 14) Q4, Q3, Q1, Q1, Q3, Q2, Q3, Q2 15) <, <, >, <



Week #8

- 1) Q4, Q3, y-axis, Q1, Q3, Q2, Q3, x-axis 2) $-1\frac{1}{12}$, $7\frac{1}{4}$, $-5\frac{5}{9}$ 3) >, >, =, =, <, =, <, <
- 4) $\frac{1}{6}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{1}{3}$, $\frac{1}{6}$, 0, 1, $\frac{5}{6}$, 1, $\frac{1}{2}$, $\frac{1}{2}$ 5) 21, 67, 133, 77 6) 81π in

Week #9

- 1) 14, 43, 108, -30 2) 24, 45, 30 3) $192 \ m^2$, $72 \ m$ 4) 5, 2, 16 5) 11.2, 12, 12 and 13, 6-13 or 7
- 6) $78 \text{ } cm^3$ 7) $180 \text{ } cm^3$ 8) $1\frac{11}{42}$ 9) $\frac{47}{60}$ 10) $-\frac{1}{72}$ 11) Q4, Q3, Q1, Q1, Q3, Q2, Q3, x-axis



