## Vocabulary

1. Equivalent
2. Expression
3. Fraction
4. Percent
5. Net
6. Mean
7. Median
8. MAD
9. Range
10. Unit Rate

## Formulas

1. Area
a. Rectangle
b. Triangle
c. A shape that can be made up of rectangles and triangles
2. Perimeter
a. Rectangle
3. Volume
a. Rectangular prism
4. Surface Area
a. Rectangular prism
5. 

## Sample Problems

1. Using the diagram below, write two equivalent expressions to represent the area of the total figure, then find the area.

|  |  |
| :--- | :--- |
| $4 \times 3$ | $4 \times 8$ |
|  |  |

2. I was digging holes with my kids this weekend. I noticed I could dig 7 holes for every 4 they could dig. Decide if the following are true or false, correct any statements that are false to make them true?
a. I can dig 21 holes for every 11 they can did.
b. I will dig about $64 \%$ of the holes
c. I can dig 1.75 holes for every hole my kids dig
d. My kids dig $\frac{4}{7}$ of the holes
e. I dig $\frac{7}{11}$ of the holes
3. For each of the following points write a fraction, decimal and its opposite.

4. The following picture frame was used to display student work. What is the largest area the art piece could be? What is the area of the entire piece including the frame? What is the largest perimeter of the art piece?

5. I'm planning an end of the year picnic for my friends. I have 27 apples and 36 trail mix bags. If I want everyone to get an equal share of each item what is the greatest number of friends I can invite? How many apples will they get? How many bags of trail mix will they get?
6. Draw a net for the following prism (label all the dimensions). What is the surface area of the prism? What is the volume of the prism?

7. What is the area of the triangle? Could I use the tiles to create a rectangle? How many would I need. What would the area of the rectangle be? How many triangles would I need to fill a 2 ft by 3 ft rectangular space? Would you have any gaps at the end?
8. Im throwing a party for my daughter. It is going to cost $\$ 3.50$ to feed each kid and $\$ 9.99$ each for them to play miniature golf. My daughter wants to invite 14 friends.
a. How much will it cost for her and her 14 friends?
b. My Bill was $\$ 121.41$ how many people actually came to the party?
c. If I leave a tip of $\$ 18.21$ what percent tip did I leave?
d. I have a coupon for $10 \%$ off a party what will my new total be (including the tip and the discount?)
e. How much did it actually cost me per person at the end of the day?
9. 6th, 7th and 8th grade decided to challenge each other to a fundraising contest. They asked for donations for their runathon. The table below shows the results of their fundraiser.
a. What fraction fo the total money raised was raised by 7 th grade?
b. What percent of all the miles run did 8th grade run?
c. What is the unit rate (per mile) that 6th grade raised?
d. Write an equation showing how distance walked by 6th grade relates to money earned (ex. c=3m, this would be cash=\$3 per mile run)

| Grade | Miles Run by Grade | Money Raised |
| :--- | :--- | :--- |
| 6th | 20 | $\$ 75$ |
| 7 th | 16 | $\$ 55$ |
| 8th | 26 | $\$ 95$ |
| Total | 62 | $\$ 225$ |

10. Write a story for each of the following graphs.
a)

c)

b)

d)

11. I keep track of the averages of the two 6th grade classes for each test. The following table shows results for the last test.

| Period 2 | Period 6 |
| :--- | :--- |
| 75 | 80 |
| 63 | 31 |
| 100 | 94 |
| 73 | 100 |
| 56 | 71 |
| 88 | 87 |
| 68 | 100 |
| 94 | 74 |
| 98 | 87 |
| 100 | 75 |
| 99 |  |
| 85 |  |
| 64 |  |

Complete the following table

|  | Period 2 | Period 6 |
| :--- | :--- | :--- |
| Mean | 81.77 |  |
| Median |  |  |
| Range | 44 |  |

