PS duPont Middle School

Welcome to Gifted Honors Algebra!

Dear students and parents,

In order for you to be as successful as possible during the next school year, I have put together some review work for you to complete this summer. This material should be familiar to you since it was covered in your Pre-Algebra class in 7th grade. If there are any problems that you are unable to complete on your own, now is the time to seek help from family members, and friends. You can also access my teacher page for some help videos.

Do not wait until the week before school starts to begin this review work. Do not use a calculator, show all work, and record your final answer in the space provided. If you require more space than what is given, complete the problem on a separate sheet of paper and attach it to the review packet.

Do your best to complete each exercise and make sure all of your work is presentable. **This is a required assignment of the Honors Algebra course and it will be collected during the first week of school.**

If you have any questions, please email me at sabrina.fitzhugh@bsd.k12.de.us anytime throughout the summer.

Enjoy the rest of your summer and I look forward to seeing you at the end of August!

Mrs. Sabrina Fitzhugh

Supply List

Mrs. Fitzhugh will supply a $1\frac{1}{2}$ inch 3-ring binder [Heavy Duty]

Mrs. Fitzhugh will supply a graphing Cornell notebook

Loose Leaf Paper

Pencils

Mrs. Fitzhugh will supply a pencil case with a ruler.

Donations of tissues, pencils, or eraser tops would be much appreciated

Inventory I

Name: _____

Number Sense

Date: _____

This assessment will test how well you remember the appropriate procedures for computing with whole numbers, decimals, fractions, mixed numbers, and integers.

Addition – Show all work and place your answer on the blank.

1. $475 + 6 + 1000$

2. $4.75 + 6 + 1.000$

1. _____

2. _____

3. $\frac{4}{9}+\frac{7}{9}$

4. $\frac{2}{3}+\frac{5}{9}$

3. _____

4. _____

5. $1\frac{1}{2}+3\frac{2}{3}$

6. $-6 +12$

5. _____

6. _____

7. $16 + (-19)$

8. $-8.25 + 17$

7. _____

8. _____

Subtraction – Show all work and place your answer on the blank.

9. $45 - 19$

10. $100 - 215$

9. _____

10. _____

11. $45 - 22.4$

12. $22.5 - 22.49$

11. _____

12. _____

13. $\frac{5}{8} - \frac{1}{2}$

14. $10 - 5\frac{2}{3}$

13. _____

14. _____

15. $4\frac{1}{4} - 1\frac{2}{3}$

16. $48 - (-12)$

15. _____

16. _____

Multiplication – Show all work and place your answer on the blank.

17. 57×3

18. 28×14

17. _____

18. _____

19. $.2 \times .3$

20. $1.8 \times .04$

19. _____

20. _____

21. $\frac{2}{3} \times \frac{1}{2}$

22. $1\frac{2}{3} \times 2\frac{2}{5}$

21. _____

22. _____

23. $(-10) \times (-5)$

24. $6 \times (-4)$

23. _____

24. _____

Division – Show all work and place your answer on the blank.

25. $534 \div 3$

26. $216 \div 12$

25. _____

26. _____

27. $45.6 \div 5$

28. $52.16 \div 4$

27. _____

28. _____

29. $\frac{2}{3} \div \frac{4}{5}$

30. $2\frac{3}{5} \div 1\frac{1}{2}$

29. _____

30. _____

31. $-48 \div 6$

32. $(-28) \div (-4)$

31. _____

32. _____

Inventory II

Name: _____

Percent

Date: _____

This assessment will test how well you can work with percents.

Write each percent as a decimal and a simplified fraction. Show all work.

1. 10%

Dec: _____

Frac: _____

2. 25%

Dec: _____

Frac: _____

3. 50%

Dec: _____

Frac: _____

4. $66\frac{2}{3}\%$

Dec: _____

Frac: _____

Write each decimal as a percent and a simplified fraction. Show all work.

5. .75

% _____

Frac: _____

6. .4

% _____

Frac: _____

7. .04

% _____

Frac: _____

8. .65

% _____

Frac: _____

Write each fraction as a percent and decimal. Show all work.

9. $\frac{4}{5}$

% _____

Dec: _____

10. $\frac{1}{3}$

% _____

Dec: _____

11. $\frac{5}{8}$

% _____

Dec: _____

12. $\frac{17}{20}$

% _____

Dec: _____

Find the percent of each number. Show all work and place your answer on the blank.

13. 40% of 50

14. 25% of 120

13. _____

14. _____

15. 15% of 60

16. 2% of 250

15. _____

16. _____

For 17 through 20, show all work and answer in a complete sentence.

17. A CD player that usually sells for $68 has a red tag on it that says "25% off at the register." How much will the CD player cost after the discount?

18. A poll shows that 60% of the people in New Castle would vote to reelect the mayor. If New Castle has 25,000 voters, how many people would you expect to vote for the mayor?

19. A luggage company says that 3% of their bags are defective. If the company produces 3,500 bags each week, how many of these bags would you expect to be defective?

20. Kayla makes $950 a week as a teacher. She just earned her Master's degree and expects to get a 15% raise. What should she now earn each week?

Inventory III Name: _____

Statistics, Probability, and Geometry Date: _____

Statistics – Show all work and put your answer on the blank.

1. Find the mean, median, mode, and range for the following numbers:

16, 21, 18, 32, 16

Mean _____

Median _____

Mode _____

Range _____

2. Mike's grades on the last 4 tests in science were 84%, 96%, 92%, and 78%. What is his median score?

2. _____

3. Find the mean for the following sets of numbers.

A. 2. 3, 5.5 3A. _____

B. -11, 5, 0, -8, 24 3B. _____

4. The temperature for the past 12 hours was taken and recorded each hour. The temperatures were: 58, 54, 60, 62, 66, 70, 76, 80, 79, 77, 75, 70
What is the range?

4. _____

5. Aaron's grades for math are 85%, 88%, 93%, and 89%. What would he need to get on the next test to have a mean (average) of 90%?

5. _____

6. The PS basketball team averaged 34 points per game last season. If they played 8 games, what was the total number of points scored for the whole season?

6. _____

7. The ages of the people who work in a certain office are as follows:
51, 43, 31, 28, 60, 45, 47, 54, 34, 42
Display this data in a stem-and-leaf plot. Include a key.

Key: _____

Probability – Show all work, simplify all answers, and put them on the blank.

A six-sided die is rolled. Write the following probabilities as simplified fractions.

8. P (5) 9. P (Even Number) 10. P (more than 2)

8. _____ 9. _____ 10. _____

A bag contains 12 red marbles, 5 blue marbles, 2 green marbles, and 1 white marble. If one marble is drawn at random, find the following probabilities written as simplified fractions.

11. P (blue) 12. P (red) 13. P (NOT red) 14. P (black)

11. _____ 12. _____ 13. _____ 14. _____

15. You have just won a school contest, but to determine your prize, you must pick a tag out of a hat. If the remaining prizes are 41 pencils, 10 T-shirts, 6 hats, and 3 jackets, what is the probability that you will win a jacket? Show all work and write your answer as a reduced fraction, decimal, and percent.

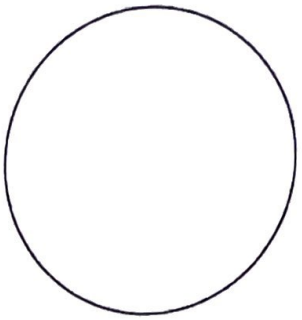
Fraction: _____

Decimal: _____

Percent: _____

16. Write our all of the possibilities of flipping a coin three times.
Example: HTH

17. On a certain spinner, P (A) = 50%, P (B) = 25%, P (C) = 0%, and P (D) = 25%. Draw what this spinner could look like.



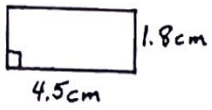
18. Draw a tree diagram to show all the possible outcomes of first flipping a coin **and** then rolling a 6 sided die.

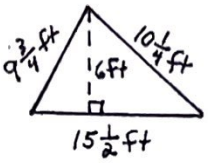
Consider the diagram you made above when answering the following question.

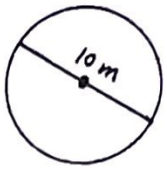
19. The game "Flip and Roll" involves a flip of a coin and a roll of a die. The coin flip determines which player will earn points and the die roll determines how many points are earned. Sam and Jessica are playing this game. Sam gets the points if the coin lands on "heads" and Jessica gets the points if the coin lands on "tails." Suppose Jessica needs at least 3 points to win the game. What is the probability that Jessica will win on the next "flip and roll?"
Show all work and explain your answer in complete sentences.

Geometry – Show all work and put your answer on the blank with the correct units.

Find the perimeter or circumference of each object given.

20. 

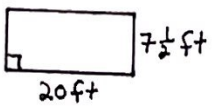
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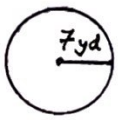
22. 

20. _____ 21. _____ 22. _____

Find the area of each object given.

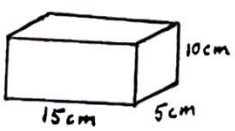
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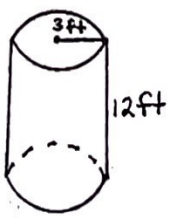
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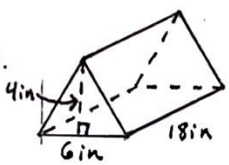
25. 

23. _____ 24. _____ 25. _____

Find the volume of each object given.

26. 

27. 

28. 

26. _____ 27. _____ 28. _____