CINCINNATI COUNTRY DAY SCHOOL

MIDDLE SCHOOL

Summer Math

All 7th Grade Students

Part 1 - June

Please complete this math packet in preparation for 7th grade Algebra. Clearly show your work neatly for each problem. Your process should be organized and easy to follow. All answers should be labeled and in simplest form on the answer sheet. This packet is due the first day of school. Good luck!

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

2. $\frac{4}{7}-\frac{1}{3}$

3. $1\frac{3}{4}+5\frac{2}{3}-3\frac{5}{6}$

4. Write the prime factorization of 84.

5. $\frac{5}{7}\times\frac{4}{15}$

6. $2\frac{4}{5}\times1\frac{5}{6}$

7. $\frac{9}{10}\div\frac{3}{5}$

8. $\frac{7}{8}\div\frac{2}{7}$

9. $3\frac{2}{3} \div 1\frac{4}{7}$

10. 5.8 x 7.4 x .06

11. 24.8 ÷ 2.5

12. (-24) + 37

13. (-18) + (-48)

14. 12 – (-19)

15. (-47) – (-38)

16. (-48) – 37

17. 48 + 39 ÷ 13 x 2 – 12 ÷ 4

18. Write .14 as a percent.

19. Write 1.12 as a percent.

20. Write 12.5% as a decimal.

21. Write $\frac{4}{5}$ as a percent.

22. Write in order from least to greatest: $\frac{9}{10}, \frac{3}{5}, \frac{4}{7}, \frac{5}{9}, \frac{1}{2}$

23. Write 100 as the sum of three Prime numbers. Remember 1 is not Prime.

24. Andrew paid $7.12 for 8 pounds of peaches. How much is each pound?

25. Evaluate the expression when d is 8: $\frac{d+4}{2}$

26. $\frac{u}{2} = \frac{7.5}{5}; u =$

27. $\frac{3}{m} = \frac{27}{45}; m =$

28. $\frac{x}{12} = \frac{22}{5}; x =$

29. Find the mean average of 89%, 76%, 92%, and 98%.

30. What is the area and perimeter square with sides of 2 ½ feet?

31. $1.2 - (3)(0.2)$

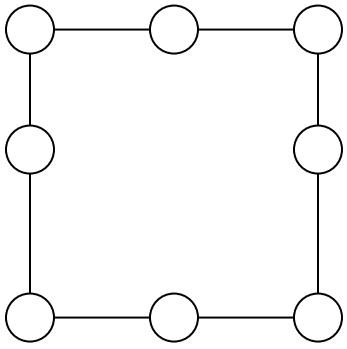
32. $5(6+2) - (-12)$

33. $\frac{x}{0.5} = 1.2; x =$

34. Danny, Pat and Kelly each tried to estimate the weight of a giant hot dog at their school fair: Danny's estimate: 59 pounds. Pat's estimate: 94 pounds. Kelly's estimate: 121

pounds. One estimate was off by 16 pounds, another by 19, and another by 43 pounds. How much did the hot dog weigh?

35. Place the number 1, 2, 3, 4, 5, 6, 7 and 8 in the eight circles so that the sum of the numbers in any line equals 13.



Summer Math

For Entering 7th Grade Students
Part 2 - July

1. (-2.45) + 3.8

2. (-45) – (-3.5)

3. (-0.2) ÷ 4

4. (-32) x 45

5. (-45) ÷ (0.25)

6. 2 + (-3) x 8 ÷ (-2) – (-25)

7. What is 12% of 48?

8. What is 345% of .35?

9. What is 0.25% of 56?

10. What is 3.5% of 42?

11. Write 28% as a fraction.

12. Write $\frac{3}{8}$ as a percent.

13. $\frac{4}{5}-\frac{1}{8}$

14. $\frac{3}{5}-\frac{1}{6}+\frac{2}{5}$

15. $\frac{4}{9}\times\frac{3}{8}$

16. $1\frac{2}{33}+2\frac{3}{5}\div\frac{2}{5}$

17. $3\frac{3}{4}\div1\frac{1}{2}$

18. ***c*** x 54 = 135; ***c***=?

19. $\frac{k}{8}=(-12); k=?$

20. Write in order from least to greatest: $1\frac{2}{3}, 1\frac{3}{7}, \frac{9}{5}, \frac{3}{2}, 1\frac{5}{4}$

21. What is the reciprocal of $1\frac{3}{4}$?

22. 8^4

23. Miguel bought 12 pounds of fudge for $33.36 How much is each pound?

24. Evaluate the expression when j is 12: $\frac{(-12)j}{4}$

25. What is the area of a triangle with a base of 8 inches and the height of 24 inches?

26. Find the mean, median, and mode of 2, 9, 5, 5, 2, 6, 7, 5, 4, 12, 8, 7.

27. If the ratio of blue to black socks is 2 to 3 and there are 48 black socks, how many blue socks are there?

28. A shirt costs $34, but is on sale for 15% off. What is the sale price?

29. Complete the pattern: 2, 4, 12, 48, _____, _____, _____

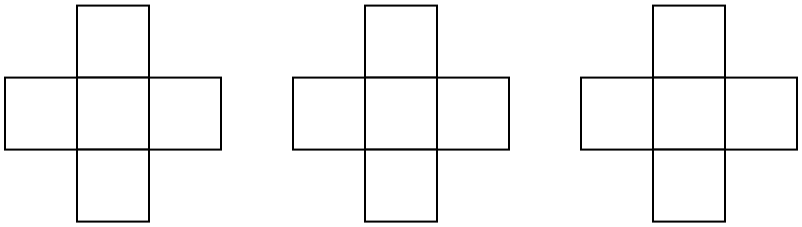
30. Complete the pattern: 2, 5, 14, 41, _____, _____, _____

31. Jody's favorite clothes include four shirts, three pairs of pants and two pairs of shoes. How many days in a row could she wear a different outfit using only her favorite clothes?

32. Brett's father is four times as old as Brett is now. In four years, Brett's age will be one-third of his father's age. How old are they now?

33. In each cross puzzle below, place the numbers 1, 2, 3, 4, and 5 in the squares, so that the sum of the three numbers in the vertical or horizontal line equals the sum given above the puzzle.

Sum = 8 Sum = 9 Sum = 10



34. Twelve people meet at a party. They all exchange handshakes. How many handshakes are exchanged?

35. The sum of the digits of an odd two-digit prime number is 11. The ten's digit is greater than the one's digit. What is my number?

Summer Math

For Entering 7th Grade Students

Part 3 - August

1. What is the greatest common factor and least common multiple of 240 and 400?

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

3. $\frac{5}{8}+\frac{2}{15}$

4. $1\frac{3}{4}+2\frac{3}{5}-1\frac{1}{6}$

5. $\frac{2}{5}\times\frac{15}{18}\times\frac{1}{3}$

6. $2\frac{2}{3}\div\frac{3}{7}$

7. $\left(1\frac{3}{7}+\frac{1}{4}\right)\div\frac{1}{5}$

8. $x + (-4) = 7$; x=?

9. $12 \div h = (-0.4)$; h=?

10. Complete the pattern: $\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}$, _____, _____, _____

11. Complete the pattern: 2, 3, 5, 8, 12, _____, _____, _____

12. Bob is driving at 55 mph. How long will it take him to travel 378 miles?

13. What is 48% of 390?

14. 45 is what percent of 315?

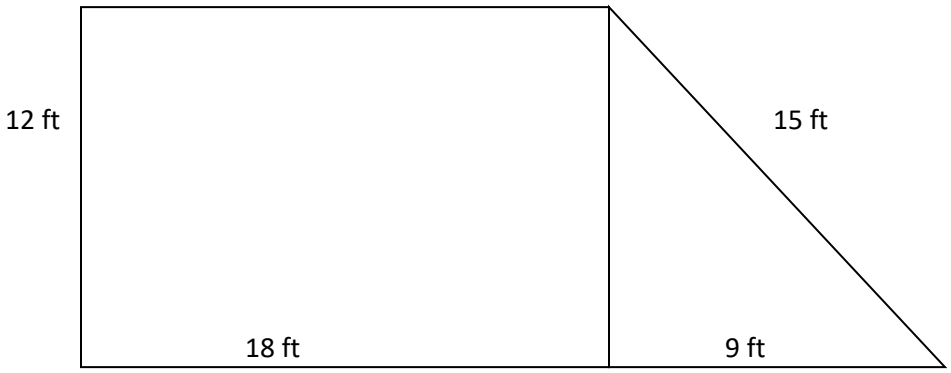
15. 28 is what percent of 2.8?

16. 60 is 45% of what number?

17. There are 350 kids at the summer fair. 180 of the kids are girls. What is the ratio of boys to girls?

18. What is three to the fifth power?

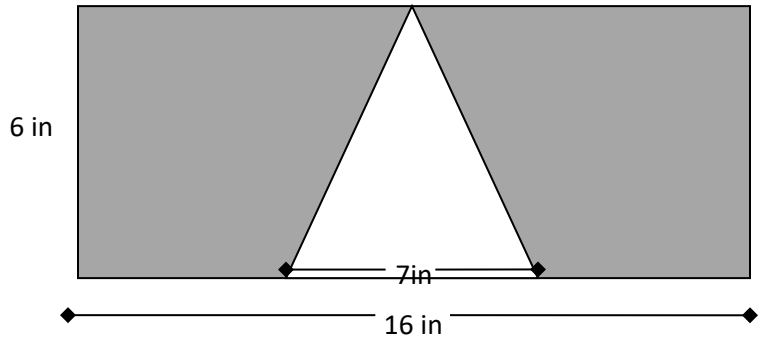
19. Find the perimeter and area of the shape below:



Area_____

Perimeter_____

20. Find the area of the shaded region:



Area_____

21. $|-14|$

22. $|-22| + |22|$

23. Write the equation for the following statement, and then solve the equation.
The sum of a number and negative twelve is twenty-two

24. Write the equation for the following statement, and then solve the equation.
The product of negative six and a number is seventy-two.

25. Write the description as a proportion. Than solve for the variable.

48 is to 16 as 54 is to k

26. Write the description as a proportion. Than solve for the variable.

315 is to x as 35 is to 8.75

27. A ball travels 172.5 meters in 7.5 seconds. What is the unit rate the ball travels in meters per second?

28. Cindy is taller than Sarah. Rita is taller than Sarah, but shorter than Cindy. Sara is shorter than Betsy. Cindy is not the tallest. The heights of the four women are 163 cm, 160.5 cm, 154.2 cm and 152.4 cm. What is the height of each girl?

29. Mr. Koper, the baker, bakes 5 apple pies for every 3 blueberry pies. Yesterday he baked 22 more apple pies than blueberry pies. How many Blueberry pies did he make?

30. Grapefruits cost 3 for $0.75. Oranges cost 4 for $0.65. If Gabriella bought $3.45 worth of grapefruit and oranges, how many of each did she buy?

31. At take off the plane weighed 676,000 pounds. This included 205,000 pounds of fuel. What percent of the total weight was fuel?

32. Mr. Yeazle uses old newspaper to make recycled greetings cards. He pays $15 for 1000 pounds of old newspaper. At this rate, what is the price of 850 pounds?

33. Allison is making number tags for the coat check at the school dance. She must make two sets of tags, which are numbered 1 – 100. How many times will she write the digit 3?

34. What number is three less than a multiple of ten, two more than a perfect square, and has two digits?

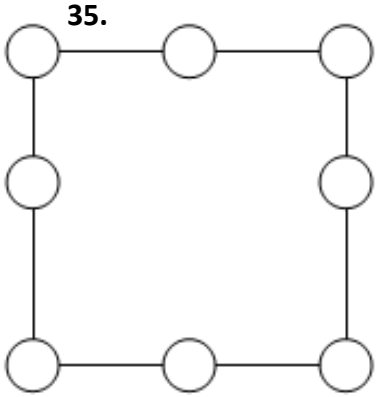
35. Trina and Mariel were paid $60 to paint a garage. Mariel started at 8:00 A.M., and Trina did not arrive and start until 10:00 A.M. The work was completed at 2:00 P.M. What is Mariel's fair share of the money?

Sumer Math Answer Sheet

Name_____

June

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. P=_____A=_____
31. _____
32. _____
33. _____
34. _____
35.



July

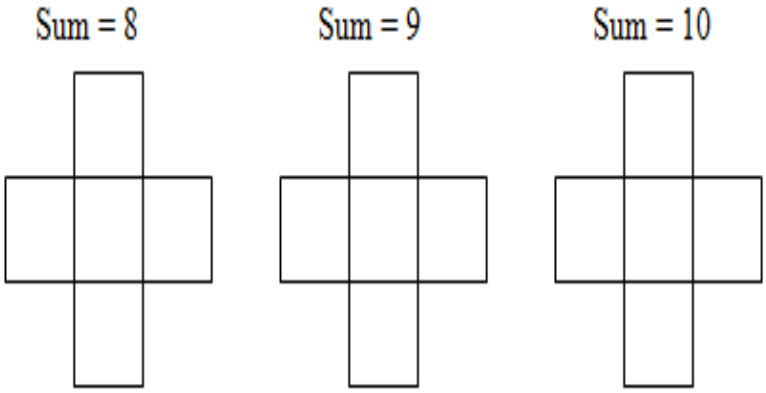
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26.

Mode=_____

Median=_____

Mean=_____

27. _____
28. _____
29. _____,_____,_____
30. _____,_____,_____
31. _____
32. _____
33.



34. _____
35. _____

August

1. GCF_____
   LCM_____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. ____,____,____
11. ____,____,____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. A=_____
    P=_____
20. A=_____
21. _____
22. _____
23. Equation_____
    Answer_____
24. Equation_____
    Answer_____
25. Proportion_____
    Answer_____
26. Proportion_____
    Answer_____
27. _____
28. Sarah_____
    Betsy_____
    Cindy_____
    Rita_____
29. _____
30. _____
31. _____
32. _____
33. _____
34. _____
35. _____