

June 2022

Dear TCA 7th grade students,

This packet is your summer math work for entering the 7th grade. To receive full credit, you must show all of your work on the page. If there is not enough room, you can use a separate piece of paper and include it with your work. All work should be done in pencil and be neat enough to read. Be sure that you read the directions before starting the problems.

If you have trouble working on the problems, you can look at online resources or ask a parent or friend for help. Some good online resources are: mathisfun.com, khanacademy.com, and purplemath.com.

This work should be spread out over the summer. This math packet is due the first day of school.

Have a great summer!

Ms. Galvinhill

<p>1. Compare the decimals using: $<$, $>$, or $=$</p> <p>5.839 15.827</p> <p>63.74 63.074</p> <p>3.75 3.77</p> <p>0.52 0.520</p>	<p>2. Write the decimals in order from least to greatest.</p> <p>6.74, 5.82, 6.95, 4.9, 5.8</p>
<p>3. Round to the ten thousands place. 7,365,915</p> <p>Round to the tens place. 68,282</p>	<p>4. Round to the tenths place. 727.34</p> <p>Round to the thousandths place 4.8295</p>
<p>5. $25 + 6.23$</p>	<p>6. $8.615 + 12.4$</p>
<p>7. $9.56 - 2.7$</p>	<p>8. $71.5 - 4.38$</p>
<p>9. Use the trick for multiplying by powers of 10.</p> <p>$2.54 \cdot 10 =$</p> <p>$2.54 \cdot 100 =$</p> <p>$2.54 \cdot 1,000 =$</p>	<p>10. Use the trick for multiplying by powers of 10.</p> <p>$87 \cdot 10 =$</p> <p>$87 \cdot 100 =$</p> <p>$87 \cdot 1,000 =$</p>

11. $748 \cdot 67$	12. $3724 \cdot 253$
13. $9.24 \cdot 2.5$	14. $21.64 \cdot 0.38$
15. Write with an exponent. $8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$	16. Write in standard form. 3^4
17. Write in scientific notation. $34,700,000$	18. Write in standard form. 2.91×10^5
19. $3 \overline{) 7.71}$	20. $50 \overline{) 1.821}$

21.

$$0.2 \overline{) 56.74}$$

22.

$$0.04 \overline{) 12}$$

23. Use order of operations to solve.

$$5 + 2(7 + 2^4)$$

24. Use order of operations to solve.

$$20 - 18 \div 3^2$$

25. Solve for x.

$$x + 11 = 17$$

26. Solve for x.

$$x - 5 = 3$$

27. Solve for x.

$$11x = 88$$

28. Solve for x.

$$\frac{x}{4} = 6$$

29. $3x - 4 = 14$	30. $10 + \frac{x}{3} = 30$
31. Write the following integers in order from least to greatest. $-4, 0, -7, 12, 2, -2$	32. Evaluate the following expressions. $-5 + 2$ $-10 + (-12)$ $30 + (-3)$
33. Evaluate the following expressions. $-2 - 6$ $7 - (-4)$ $-12 - (-6)$	34. Evaluate the following expressions. $10 \cdot -4$ $-6 \cdot -8$
35. Evaluate the following expressions. $-36 \div -6$ $70 \div -2$	36. Solve for x. $-4x + 3 = -1$

37. $\frac{x}{5} - (-4) = 12$

38. List all of the factors of 24.

39. Find the prime factorization of 90 using a factor tree.

40. Find the greatest common factor of 60 and 75.

41. List the first ten multiples of 9.

42. Find the least common multiple of 9 and 24.

43. Write the fractions in simplest form.

$$\frac{8}{24}$$

44. Write the fraction in simplest form.

$$\frac{30}{36}$$

45.

$$\frac{8}{13} + \frac{2}{13}$$

46.

$$\frac{2}{9} + \frac{1}{6}$$

47. Write answer as a mixed number in simplest form.

$$6\frac{4}{5} + \frac{3}{5}$$

48. Write answer as a mixed number in simplest form.

$$2\frac{3}{8} + 11\frac{5}{24}$$

49.

$$\frac{12}{31} - \frac{7}{31}$$

50.

$$\frac{30}{45} - \frac{1}{5}$$

51. Write answer as a mixed number in simplest form.

$$5\frac{2}{7} - \frac{6}{7}$$

52. Write answer as a mixed number in simplest form.

$$8\frac{3}{4} - 2\frac{2}{3}$$

53.

$$\frac{3}{8} \cdot \frac{5}{6}$$

54.

$$\frac{2}{5} \cdot 4\frac{1}{2}$$

55.

$$\frac{5}{6} \cdot 3$$

56.

$$\frac{4}{7} \div \frac{5}{6}$$

57.

$$2\frac{1}{3} \div \frac{7}{8}$$

58.

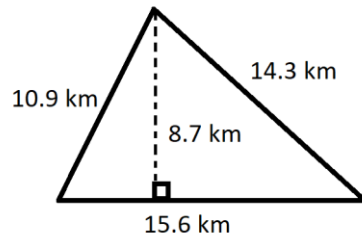
$$6 \div \frac{2}{5}$$

<p>59. There is a bag of marbles contained: 2 white marbles, 3 orange marbles, 1 blue marble, and 2 red marbles. What is the probability of randomly picking a white marble?</p>	<p>60. Using the same situation as problem 59, after picking one white marble out of the bag, what is the probability of picking an orange marble from the remaining marbles?</p>
<p>61. At an animal shelter, there are 7 dogs to every 4 cats. Write the ratio of dogs to cats in the following ways.</p> <p>Word form:</p> <p>Ratio form:</p> <p>Fraction form:</p>	<p>62. Simplify the following ratio. Write your answer in the same form as the ratio is given to you.</p> <p style="text-align: center;">26 to 8</p>
<p>63. Simplify the following ratio. Write your answer in the same form as the ratio is given to you.</p> <p style="text-align: center;">35 : 14</p>	<p>64. Simplify the following ratio. Write your answer in the same form as the ratio is given to you.</p> <p style="text-align: center;">$\frac{25}{40}$</p>
<p>65. Use cross multiplication and determine if the following is a proportion.</p> <p style="text-align: center;">$\frac{3}{7}$ and $\frac{8}{19}$</p>	<p>66. Use cross multiplication and determine if the following is a proportion.</p> <p style="text-align: center;">$\frac{12}{30}$ and $\frac{30}{75}$</p>

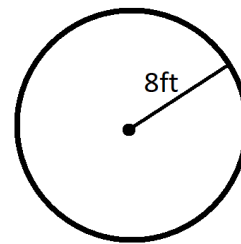
67. A person is standing beside a tree. The person is 6ft tall and they cast an 8ft shadow. The tree casts a 200ft shadow. How tall is the tree?

68. Write the definition of a ratio.

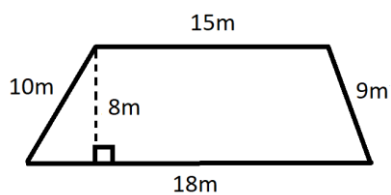
69. Find the area for the triangle.



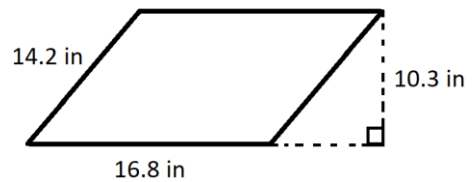
70. Find the area of the circle. Use 3.14 for pi.



71. Find the area of the trapezoid.



72. Find the area of the parallelogram.



<p>73. What is the perimeter of a rectangle with a length of 23m and a height of 34m?</p>	<p>74. Draw and label: an acute angle, right angle, and obtuse angle.</p>
<p>75. What is 17% of 234?</p>	<p>76. What is 3% of 87?</p>
<p>77. 34 is what percent of 85?</p>	<p>78. What percent of 6 is 2.1?</p>
<p>79. If a test contains 40 questions, how many would a student have to answer correctly to get a 70%?</p>	<p>80. A student has 50 pages to read for homework. They have read 64% of the pages. How many more pages do they have to read?</p>