

HTMS Math 7/8 Summer Packet

This assignment provides a review of mathematical and algebraic skills that are required for success in Math 7/8. You are expected to be fluent with these skills, showing complete algebraic work where appropriate, so this assignment has been provided for your practice toward mastery.

Show ALL work on a separate page and write the answers ONLY on this page. This will be your first grade in 7th grade so make sure you do your best work.

1. If the base of a rectangle is 17.4 cm and the area is 227.94 cm^2 , what is the perimeter of the rectangle? _____
2. Find the value of the expression: $27 \div 3 + 4 \cdot 6$ _____
3. Find the value of the expression: $8(26 - 17) + 8$ _____

Evaluate the expressions if $j=3$, $k=9$, and $m=6$

4. $k^2 - jm$ _____
5. $\frac{km}{j}$ _____
6. $\frac{11}{24} \cdot \frac{8}{15} = x$ _____
7. $-24 \cdot \frac{5}{6} = x$ _____
8. $4\frac{4}{5} \cdot 3\frac{1}{3} = x$ _____
9. $28 \div \frac{2}{7} = x$ _____
10. $\frac{5}{16} \div \frac{-10}{11} = x$ _____
11. $7\frac{1}{7} \cdot 4\frac{1}{5} = x$ _____
12. Solve $3x - (-15) = 24$ $x =$ _____
13. $-3\frac{4}{9} + 1\frac{1}{15} = x$ _____
14. $15\frac{1}{2} - 1\frac{8}{9} = x$ _____
15. $7 + (-14) = x$ _____
16. Find 8% of 40. _____
17. Find 70% of 68. _____
18. Find 1.5% of 300. _____
19. $-47 - (-59)$ _____
20. $-22 + (-32)$ _____
21. $232 + (-433) - 121$ _____
22. If you flip a penny 20 times, what is the percent of the tosses should land tail side up?

Simplify

23. $-95ab - (-16ab)$ _____
24. $-32y + (-17y)$ _____
25. $-12f + (-9f)$ _____

26. $-76x - 24x$ _____ 27. $-4y - 6 = 62$ _____ 28. $7h + 17 = -39$ _____

29. $\frac{g}{6} = -72$ _____ 30. $\frac{j}{-8} + 11 = 24$ _____

31. $\frac{d}{-3} + 7 = 19$ _____ 32. $y + (-27) = 125$ _____ 33. $-7t = -161$ _____

34. $\frac{b}{96} = \frac{5}{8}$ _____ 35. $\frac{9}{12} = \frac{0.6}{c}$ _____ 36. $\frac{v}{21} = \frac{4}{6}$ _____

37. Change $\frac{3}{8}$ to a decimal. _____ 38. Change $\frac{1}{5}$ to a percent. _____

39. Find 39% of 500. _____

40. You see a pair of shorts for \$34.50 and a pair of shoes for \$28.99. The sales tax is 7%. You have \$70. Do you have enough to buy these items? How much do you have left over or how much are you short? _____

41. A yard of material sells for \$12. How much will $\frac{3}{4}$ of a yard cost? _____

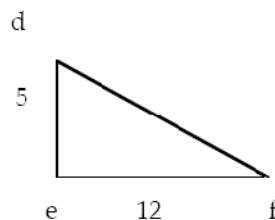
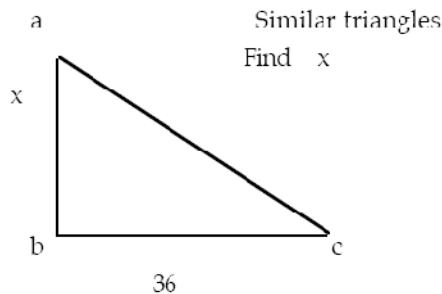
42. To make 20 biscuits, Juanita uses 5 cups of flour to 1 cup of milk. If she uses 3 cups of milk, how many cups of flour will she use? _____

43. When 2,000 pounds of paper are recycled or reused, 17 trees are saved. How many trees are saved if 5,000 pounds of paper is recycled? _____

44. If 6 pounds of apples cost \$9, then how much would 21 pounds of apples cost?

45. The scale on a map is 1 inch equals 5 feet. What is the distance between two points on the map that are $8 \frac{1}{2}$ inches apart on the map? _____

46. Find the value of x: _____



47. Which is the better buy, 4 pounds of candy for \$2.72 or 6 pounds of candy for \$4.20?

48. You find a shirt that costs \$25. It is on sale for 20% off. You have to pay 7% sales tax after the discount. How much will this shirt cost you? _____

49. $^{-}22 - ^{-}13 =$ _____

50. $-6 - 3 =$ _____

Translate and then solve:

51. What is the absolute value of the sum of ten plus negative sixteen?

52. Six more than three times a number is negative 4 _____

Solve. Leave remainder in fraction form not a decimal.

53. $622 \div 5 =$ _____

54. $428 \div 12 =$ _____

55. Draw a box-and-whisker plot for the following data set:

77, 79, 80, 86, 87, 87, 94, 99

Label the lower (1st) quartile, median, and the upper (3rd) quartile. Find the range of the data.

56. Create a scatter plot from the table of data. What is the correlation? What can you determine from the graph?

Age	10	14	7	5	16	4	12	18	9	6	15	16	5
Height	60"	66"	55"	48"	64"	48"	65"	69"	56"	48"	68"	70"	47"

For problems 57-60, leave answers as simplified fractions.

57. Solve: $3x - 12 = -24 + 7x$ _____

58. Solve: $2(3x-12)=4(5x-17)$ _____

59. Solve: $\frac{2}{3}x+9=\frac{3}{4}-\frac{3}{2}x$ _____

60. Solve: $-3(2x-4)+7x=12x-15$

61. $\frac{2x-5}{10}=\frac{-6x+7}{6}$

For questions 62-65, write an equation for each and solve.

62. I want to throw a party for my son. The bounce house charges \$200 to rent the place and \$5 per child. Pump it up charges \$150 to rent and \$7 per child. How many children need to attend for the total price to be the same? _____

63. The bill(parts and labor) for the repair of a car was \$458. The cost of parts was \$339 and the cost of labor is \$34 per hour. How many hours did it take to fix the car? _____

64. HTMS drama club charges \$4 per student for admission to the play. The club borrowed \$40 from parents to pay for costumes, props, and the set. After paying back the parents, the drama club has \$100. How many students attended the play? _____

65. A local computer center charges nonmembers \$5 per session to use the center. If you pay a membership fee of \$25, you pay only \$3 per session. Write an equation, solve it, and decide at what point you should become a member. _____

66. Solve: Round to the nearest hundredth $7.45x-8.81=5.29+9.47x$ _____

67. Solve: Round to the nearest hundredth $4.65x-4.79=13.57-6.84x$