

Calculators are NOT permitted!

1. What does the digit 8 mean in 4,678,952?
2. Add: $2703 + 4125 + 6004 + 8956$
3. Round 345,759 to the nearest thousand.
4. Multiply: 8305×642 .
5. Simplify: $10 \times 24 - (18 + 2) \div 4 - (9 - 7)$.
6. An apartment builder bought 13 gas stoves at \$425 each and 13 refrigerators at \$620 each. What was the total cost?
7. A chemist has 2753 mL of alcohol. How many 20 mL beakers can be filled? How much will be left over?
8. Find the prime factorization of 648.
9. Reduce: $\frac{12}{30}$
10. Multiply and simplify: $\frac{3}{7} \times \frac{14}{9}$
11. Divide and simplify: $180 \div \frac{3}{5}$
12. After driving 600 km, the Smith family has completed $\frac{2}{3}$ of their vacation. How long is the total trip?
13. A book bag requires $\frac{4}{5}$ yd of fabric. How many bags can be made from 48 yards?
14. A road crew repaves $\frac{1}{12}$ mi of road each day. How long will it take the crew to repave a $\frac{3}{4}$ mile stretch of road?
15. Find the L.C.M. of 26, 36, and 54.
16. Add: $8\frac{1}{3} + 2\frac{3}{5}$
17. Subtract: $10\frac{1}{4} - 6\frac{1}{10}$

18. Multiply: $2\frac{1}{5} \times 1\frac{1}{10}$

19. Divide: $27 \div 2\frac{1}{4}$

20. Find the average of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{5}$.

21. A board $\frac{9}{10}$ in. thick is glued to a board $\frac{8}{10}$ in. thick. The glue is $\frac{3}{100}$ in. thick. How thick is the result?

22. Round 17.4287 to the nearest tenth.

23. Subtract $300 - .7908$

24. Divide $2.18708 \div 2.14$

25. Solve $x + 51.748 = 548.0275$

26. Calculate $(8 - 1.23) \div 4 + 5.6 \times 0.02$

27. A nurse earned \$620.74 during a recent 40 hr week. What was her hourly wage? Round to the nearest cent.

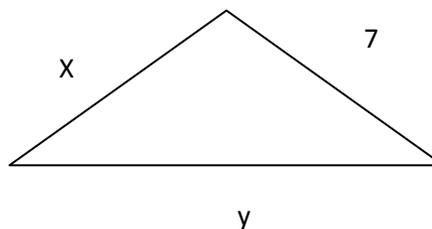
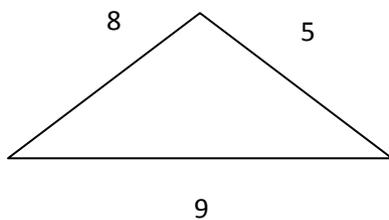
28. Find decimal rotation: $\frac{13}{4}$

29. A car will go 377 mi on 14.5 gallons of gasoline. What is the rate in miles per gallon?

30. Is this pair of numbers proportional? 9, 15, and 36, 59

31. A train travels 448 mi in 7 hours. How far will it travel in 13 hr?

32. The pair of triangles is similar. Find the missing lengths:



X =

Y =

33. How high is a billboard that casts a 25 ft. shadow at the same time that an 8 ft. tree casts a 5 ft. shadow?
34. Solve: $\frac{4.5}{120} = \frac{0.9}{x}$. $x =$
35. Find decimal notation: $-\frac{3}{11}$
36. $-\frac{2}{3} + \frac{1}{12} =$
37. $-3.8 + 5.1 + (-12) + (-4.3) + 10 =$
38. $-9 \times (-6) =$
39. $-5.1 \div 1.7 =$
40. $-16 \div 4 - 30 \div (-5) =$
41. The price of a stock opened at a value of \$17.68 per share and dropped by \$1.63 per hour for 8 hr. What was the price of the stock after 8 hr?
42. $[-12(-3) - 2^3] - (-9)(-10) =$
43. Multiply $-8(3-6x)$
44. Collect like terms: $-3a + 9b + 2a - b$
45. Solve: $-\frac{2}{3} + x = -\frac{1}{6}$
46. $y - 0.9 = 9.09$
47. $\frac{1}{4}x - \frac{1}{8}x = 3 - \frac{1}{16}x$
48. $-5x + 3(x + 8) = 16$
49. An HDTV sold for \$829 in May. This was \$38 more than the cost in January. Find the cost in January.
50. Value Rent-A-Car rents a van at a daily rate of \$84.95 plus 60 cents per mile. Molly Reckert rents a van to deliver electrical parts to her customers. She is allotted a daily budget of \$320. How many miles can she drive per day and stay within her budget?