Practice Problems (1-60)

1. $520 \div 25 =$

2. $40.6 + 27.84 + 12 =$

3. $3.8 - (2 - 0.18) =$

4. *Estimate the product of* $9\dfrac{5}{8}$ *and* $11\dfrac{2}{5}$ *by first rounding each mixed number to the nearest whole number.*

5. *Properly arrange from least to greatest:* $0.1, 0, -1, 1$

6. $0.14 \times 0.15 =$

7. $0.14 \div 70 =$

8. $2\dfrac{1}{2} + 3\dfrac{1}{6} + 2\dfrac{1}{3} =$

9. $5\dfrac{1}{6} - 3\dfrac{3}{4} =$

10. $3\dfrac{3}{4} \times 3\dfrac{1}{3} =$

11. $5\dfrac{5}{6} \div 2\dfrac{1}{2} =$

12. $\dfrac{24x^2y}{40xy2}$ *reduces to*

13. *Which digit in* 50.143 *has the same place value as the* 7 *in* 6.8792 ?

14. $\left(8 + 10^3\right)\left(4 \times 10^4\right)$

15. *One inch equals* 2.54 *centimeters. One foot equals how many centimeters?*

16. Formula "$F = 1.8C + 32$" may be used to convert temperatures in °C to °F. Therefore, 30°C = ?

17. Please write $\dfrac{1}{25}$ and $\dfrac{1}{5}$ in fraction and decimal form.

18. $\dfrac{\left(2^4\right)\left(2^6\right)}{2^2} =$

19. $\sqrt{5^2 - 3^2} =$

20. Write as a numeral: ten and two hundreths

21. What is the prime factorization of 500?

22. One white, 2 blue and 3 red marbles were in a bag. One marble was drawn from the bag and put back. Then another was drawn. What's the probability that a white marble was drawn both times? Solve as a fraction.

23. $(-6) - (-7)(-4) =$

24. Greg drove 386 miles and used 20 gallons of gas. His car averaged how many miles per gallon?

25. At a 25% off sale, a shirt cost $36. What was the regular price of the shirt?

26. Janice correctly answered 21 of the 24 questions. What percent of the questions did she answer correctly?   Text
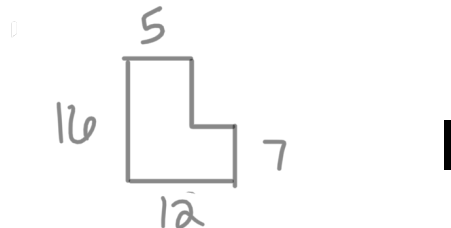
27. $\dfrac{(2xy)\left(4x^2y\right)}{8x^2y} =$

28. If $a = 3$, $b = 4$, and $c = -2$, then $b^2 - 4ac = ?$

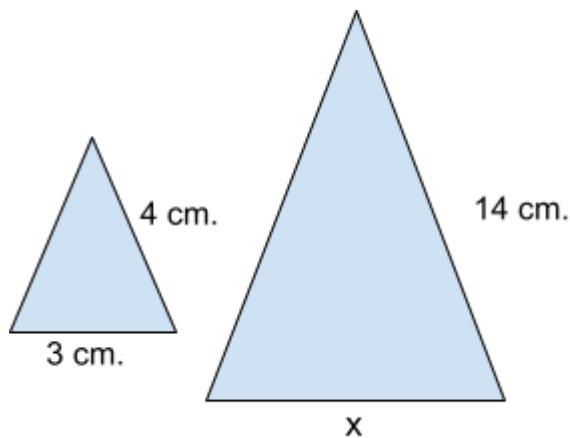29. Draw a quadrilateral that could be labeled as a trapezoid.

30. *What is* $33\frac{1}{3}$ *% of* $\$48$?

31. *What is the perimeter of this figure? All angles are right angles.*

5

16

7

12

32. *Simplify:* 2yd. 2ft. 7 in. + 1yd. 1ft. 8 in. =

33. *These two triangles are similar. Find x.*

4 cm.   14 cm.

3 cm.

x

34. $3(x-3) =$

35. *Use a ratio box to solve: After working 6 months, Gina received a raise*
of 25%. If Gina's previous pay was $\$7.20$ *per hour, what was her hourly*
pay after the raise?

36. *If* $3.6 - 0.18n = 7.02$, *then n equals*

37. *The diameter of a circle is* $12"$. *What is the area of a* $90°$ *sector of*
the circle? Use 3.14 for π.

38. *Jamie ran the first 2000 meters in 6 minutes. At the rate, how long would it take him to run 5000 meters?*

39. *Evaluate:* $\dfrac{a+b}{c}$ *if* $a = -6$, $b = -4$, *and* $c = -2$

40. *Solve this proportion:* $\dfrac{2.4}{m} = \dfrac{3}{4.5}$

41. *Sam's first six scores were* $90, 80, 90, 80, 80$ *and* 100. *What was the median of these scores?*

42. *Simplify:* $\dfrac{3x \times 3x}{3x + 3x}$

43. *If 24 kilograms of seed cost* $\$37$, *how much would 42 kilograms cost at the same rate?*

44. *Write* $2\dfrac{1}{2}\%$ *as a fraction and a decimal also.*

45. *Solve and graph on a number line:* $2x + 3 < 5$

46. *Multiply and write the product in scientific notation:*

$$\left(3 \times 10^4\right)\left(7 \times 10^{-9}\right)$$

47. *Simplify:* $3^3 - \sqrt{64} + 4 \times 2^4$

48. *An arch in the form of a semicircle was over a 40 inch doorway. Find the length of the arch to the nearest inch.*

49. *What is the measure of the angle formed by the hands of a clock at 4:00?*

50. *Simplify:* $100 - \{80 - 3[2 + 2(3^2)]\}$

51. *Solve:* $1\frac{2}{3}x - 15 = 45$

52. *What is the total surface area of a cube that has a 3 inch side?*

53. *Solve and graph on a number line:* $2x + 3 \geq 5$

54. *Find the total cost, including 7% tax, of 20 square yards of carpeting priced at $16 per square yard.*

55. *Simplify:*

a. $4x + 2(x + 3)$

b. $\dfrac{-5(-4) - 3(-2)(-1)}{(-2)}$

56. *The median of these numbers is how much less than the mean?*

$2.0, 0.6, 0.7, 0.85, 5.3$

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

58. *In rectangle QRST, QR is 30 mm and RS is 40 mm. How long is QS?*
(draw a diagram to help you solve)

59. *Use two unit multipliers to convert 4 ft^2 to square inches.*

60. *Multiply and write the product in scientific notation:*

$(4 \times 10^3)(8 \times 10^{-8})$