

Mathematics 7 Summer Review
(Show all work – use additional paper if needed)

Find the sum or difference in simplest form:

- | | | | |
|------------------------------------|------------------------------------|-------------------------------------|-----------------------------------|
| 1. $4\frac{3}{8} + 3\frac{11}{12}$ | 2. $6\frac{3}{14} - 4\frac{1}{28}$ | 3. $2\frac{7}{12} + 9\frac{17}{18}$ | 4. $3\frac{2}{7} - \frac{19}{21}$ |
| 5. $7 + (-8)$ | 6. $-8 + 5$ | 7. $-6 + (-2)$ | 8. $5 + (-4)$ |
| 9. $11 - (-5)$ | 10. $-1 - (-15)$ | 11. $0 + (-6)$ | 12. $3 - 5$ |

Find the product or quotient in simplest form:

- | | | | |
|---------------------|--------------------|---------------------|---------------------|
| 13. $4 * (-5)$ | 14. $5 * 19$ | 15. $7 * (-4)$ | 16. $-8(11)$ |
| 17. $-3 * (-12)$ | 18. $-7 * (-13)$ | 19. $0 + (-16)$ | 20. $-1 * (-8)$ |
| 21. $-45 \div (-5)$ | 22. $-48 \div 6$ | 23. $-35 \div (-7)$ | 24. $0 \div 2$ |
| 25. $18 \div (-2)$ | 26. $0 \div (-16)$ | 27. $72 \div (-8)$ | 28. $-35 \div (-7)$ |

Solve the following equations:

- | | | | |
|--------------------|---------------------|-----------------------|-------------------|
| 29. $m - 8 = 15$ | 30. $-7q = 28$ | 31. $D - (-2) = 12$ | 32. $16 - w = 10$ |
| 33. $4y + 3 = -17$ | 34. $-9c - 4 = -25$ | 35. $f - 4.25 = 6.78$ | 36. $15 + z = -8$ |

Simplify the following:

- | | | | |
|-----------------------------|---------------------------|-----------------------------|--------------------------------|
| 37. $ -8 $ | 38. $ 0 $ | 39. $ -8 + 3 $ | 40. $ -5 + 7 $ |
| 41. $20 \div 2 - 24 \div 3$ | 42. $-4 + 6 * 7$ | 43. $-8 + 16 \div (-4)$ | 44. $10 - 18 \div (-2) + 4$ |
| 45. $-2 + (-3) * (-1)$ | 46. $19 + -3 * 4 - 2 * 3$ | 47. $6 - 8 \div 2 - 10$ | 48. $-8 + (-5)7 + 3$ |
| 49. $(-2)(3 + 8)$ | 50. $(12 * 3 - 1) \div 5$ | 51. $(7 - 6) + (2 - 3 * 4)$ | 52. $(2 * 6 - 4) \div (4 - 8)$ |

Solve the following:

53. The Fairbanks, Alaska, a typical January temperature is -13°F and a typical April temperature is 30°F . What is the difference between these temperatures?
54. The price of a share of stock increased \$3 each week over a 7-week period. What was the total change in the price of a share of the stock over this period of time?
55. Mr. Pearce wanted to write a check for \$85. He noticed that he had only \$80 in his checking account. What integer shows what Mr. Pearce's checking account balance would have been if he had written the check?

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56. How is the following mathematical phrase written as an algebraic expression?

Fifty less than the product of eight and a number

57. A lion's heart beats 12 times in 16 seconds. How many times does a lion's heart beat in 60 seconds?

58. What is 85% of 62?

59. Find the percent of increase from 400 to 540.

60. Danielle has a night stand with a tabletop in the shape of a pentagon. If one side length of the tabletop is 18 inches, what is its perimeter?

61. Barry's backyard is a square plot of land with a side length of 47 feet. What is the perimeter of Barry's backyard?

62. Catherine worked 23 hours last week babysitting. She earned \$126.50. What was Catherine's rate of pay?

63. Sharon drove 188.3 miles to see a softball game. If she was driving for $3\frac{1}{2}$ hours, what was her average rate of speed?

64. Kelvin pumped 15.2 gallons of gas into his car. If he paid \$59.13 for the total amount of gas, what was the rate per gallon that Kelvin paid?

65. Nia found the following prices for shorts: \$25, \$28, \$19, \$20, \$18, \$19, \$32, and \$29. Find the mean, median, and mode for the prices.

66. What is the probability of rolling a number greater than 2 on a number cube?

67. What is the volume of a rectangular prism with side lengths 15.8 m, 24.5 m, and 4.2 m? Round to the nearest cubic meter.

68. Write 84% as a fraction in simplest form.

69. Rose bought 5 pencils for \$0.69 each, 3 notebooks for \$ 2.75 each, and a pocket dictionary for \$5.49. How much change will she receive from \$20?

70. Susan needs material for her school project. She buys 3.75 yards of material at \$5.72 a yard. What is the total cost of the material? Round to the nearest cent.

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Solve each one-step and two-step equations.

1. $-5x = 35$

2. $m - 8 = -5$

3. $b - (-10) = -25$

4. $\frac{n}{5} = 10$

5. $-3y + 6 = 30$

6. $6b - 12 = -48$

7. $\frac{c}{4} - 18 = 4$

8. $25 + z = -15$

9. $14 - d = 24$

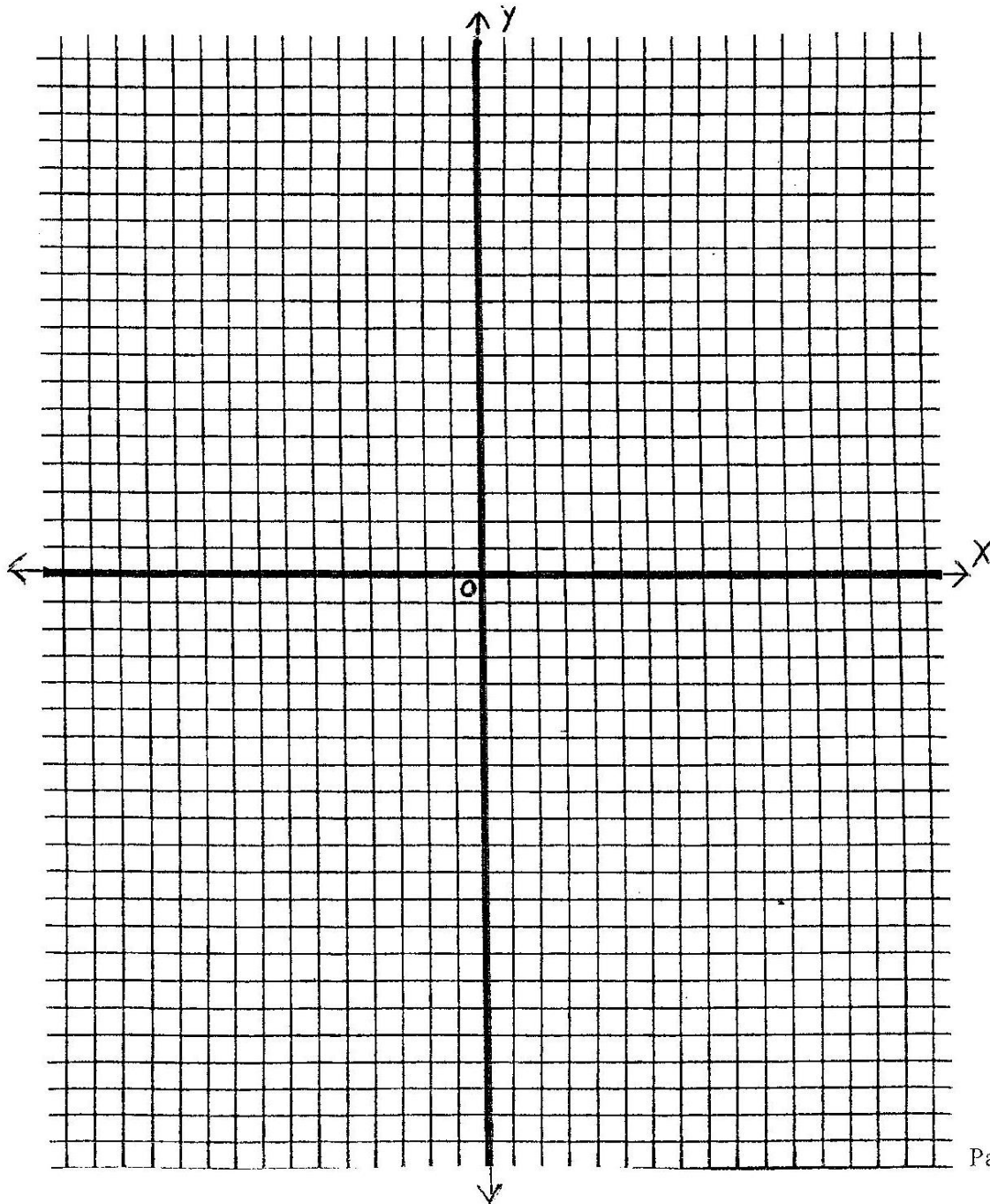
10. $-x = 20$

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Locate the following points on a coordinate plane and connect them in order with straight line segments. What picture is formed?

$(X,Y) = (-12, 12), (-10, 8), (-8, 4), (-7, 2), (-4, -4), (-1, -9), (0, -11),$
 $(1, -9), (4, -4), (7, 2), (8, 4), (10, 8), (12, 12), (8, 12), (6, 8), (4, 4),$
 $(0, -4), (-4, 4), (-6, 8), (-8, 12)$



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