

Name: _____

Date: _____

8th Grade Pre-Algebra FINAL EXAM REVIEW PACKET

1. A computer is priced at \$2,000. If the sales tax rate is 7.5%, find the total cost of the computer.
2. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
20, 23, 18, 21, 4, 17, 15
3. Solve: $5(a + 3) = 30$
4. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
17, 25, 15, 19, 14, 21, 21, 15, 17, 24
5. What is the slope of the line connecting the points (3, 5) and (6, -7)?
6. All snow equipment is on sale with a 25% discount. A pair of Sorel boots regularly sells for \$195. Find the discount.
7. Solve: $5(2x - 3) - 1 = 8x - 6$
8. Use the percent proportion to solve: 175% of 12 is what number?
9. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
13, 15, 11, 9, 14, 11, 12
10. Translate into an equation and solve (Use x to represent the unknown number): The sum of seven times a number and five is negative sixteen. Find the number.

11. **Use percent proportion to solve:** 18 is what percent of 25?

16. **Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:**

59, 72, 57, 51, 62, 77, 73, 64, 54

12. **Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:**

48, 56, 72, 47, 43, 36, 47, 14

17. **Solve:** $2(x - 6) = -8 + 4(x + 2)$

13. **Solve the equation:** $2(a - 4) = 3(1 + a)$

18. **Solve the equation:** $25 + 5x = 10$

14. **Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):**

14, 9, 22, 14, 22, 18

19. **Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):**

16, 12, 23, 24, 16, 27

15. Ms. Hawley deposited \$850 in a savings account that paid 4.25% simple interest. What was the balance in her account at the end of 2 years?

20. **Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):**

14, 18, 11, 16, 21, 15, 22, 15, 21

21. Find the balance of \$300 at an interest rate of 4% compounded annually for 3 years.
22. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
15, 17, 10, 12, 19, 20, 16
23. Use percent proportion to solve: What is 75% of 69?
24. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
14, 18, 14, 15, 15, 19, 14, 12, 17, 9
25. Use the percent proportion to solve: 21 is what percent of 50?
26. Evaluate: $-7(5 + 4)$
27. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
9, 15, 6, 5, 11, 14, 4, 11
28. Solve: $4(y - 1) = 2y + 6$
29. Simplify: $6(-3x) - 9 + 3(-2x + 6)$
30. A backpack is on sale for 15% off the original price of \$28.95. The tax in Wisconsin is 5.5%. What is the final price of the backpack?

31. This table lists the number of overtime hours employees worked. Use the table to answer the questions below. (Round to the nearest tenth if necessary)

Employee	Overtime hours for March
Ray	8
Joe	9
Tony	10
Jean	19
Laura	2
Juan	3
Debbie	9
Sam	12.5
Jenny	8.5

- a.) Find the mean.
- b.) Find the median.
- c.) Find the mode.
32. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
81, 79, 88, 67, 89, 87, 85, 83, 83

33. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
22, 27, 25, 11, 29, 28, 41, 26, 28, 23

34. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
35, 26, 33, 32, 26, 27, 29, 30

36. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
42, 36, 58, 47, 34, 43, 54, 49, 48, 41, 38

37. Solve: $x + 23 = -11$

38. Solve the equation: $7y + 8 = -2y - 64$

43. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
4, 7, 1

39. Find the mean, median, and mode for each set of data (Round to the nearest tenth if necessary):
6, 8, 7, 6, 1

44. Solve the equation: $8 + 2(x + 4) = 18$

40. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
90, 88, 72, 85, 92, 95, 93, 86, 92, 91

45. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
107, 114, 124, 108, 117, 106, 107, 109, 117, 115

41. Use percent proportion to solve: 35 is 5% of what number?

46. Solve the equation: $-18 = 3(z + 4)$

42. Find the range, median, upper quartile, lower quartile, and interquartile range for each set of data:
15, 16, 18, 9, 18, 17, 19, 19, 10, 12, 15, 13, 16

47. Simplify: $n + mn + n$

48. **Simplify:** $6(x - 2) + 5x + 4$

49. Find the simple interest on \$6000 invested for 8 years at 4%.

50. A sporting goods store pays \$180 for a rubber raft. The percent of markup is 40%. Find the raft's selling price.

51. **Solve the equation:** $2(6x + 1) = 4(x - 5) - 2$

52. **Solve the equation:** $11 + \frac{d}{6} = 22$