

Summer Packet

Pre-Algebra

Note: You should be completing this packet if you completed Pre-Algebra* this past school year.

*You may also be completing this packet if you took Math 7 CPM and qualified to take Algebra 1 in Fall 2010

Name _____

1. Follow the directions to complete the problems in the packet.
2. Show all your work.
3. Circle your final answer.

If you are having trouble, consult the following resources for help.

- **CPM:** <http://cpm.org/students/extraPractice.htm> (Under *Foundations for Algebra Course 1 and 2*- you can either download the full skill builders PDF or search by topic)
- **Coolmath:** <http://www.coolmath.com/prealgebra/index.html> (Look for topics under *Pre-Algebra Help Lesson Topics*)

Solve each proportion:

1. $\frac{3}{7} = \frac{x}{56}$

4. $\frac{14}{17} = \frac{x}{85}$

2. $\frac{4}{9} = \frac{x}{72}$

5. $\frac{2}{5} = \frac{x}{35}$

3. $\frac{2}{11} = \frac{x}{88}$

6. $\frac{12}{19} = \frac{108}{x}$

Solve each problem with a guess and check table or with an equation.

7. A wood board 100 centimeters long is cut into two pieces. One piece is 26 centimeters longer than the other. What are the lengths of the two pieces?

8. Thu is five years older than his brother Tuan. The sum of their ages is 51. What are their ages?

9. Tomas is thinking of a number. If he triples the number and subtracts 13, the result is 305. What number is Tomas thinking?

10. Two consecutive numbers have the sum of 123. What are the two numbers?

11. Two consecutive even numbers have a sum of 246. What are the numbers?

12. Joe's age is three times Aaron's age and Aaron is six years older than Christina. If the sum of their ages is 99, what is Christina age? Joe's age? Aaron's age?

Solve these Equations

13. $4x + 3 = 2x + 7$

14. $4x - 3 = 7x + 9$

15. $12c + 3 = 17c - 2$

16. $13n - 12 = 6n + 9$

17. $4c + 16 = 3c + 15$

18. $-5c - 16 = 2c + 5$

19. $10x + 18 = 8x - 12$

20. $5b - 7 = 9b + 13$

21. $3(2x - 5) = 21$

22. $3(2x + 2) = 12$

23. $2(3x - 2) = 4(x + 2)$

24. $-4(-3x - 2) = 12$

25. $-5(3x + 2) = -3(x - 2)$

26. $4(3x - 2) = -12$

27. Change 0.08 to a percent.

28. Change 65% to a fraction in lowest terms.

29. Change 125% to a fraction in lowest terms.

30. Change 3.25 to a percent.

31. Change $\frac{1}{7}$ to a decimal.

32. Change 0.375 to a percent. Change the percent into a fraction.

Find the perimeter of each shape.

33. A rectangle with the $b = 5$ and $h = 10$

35. A parallelogram with $b = 8$ and side = 5

36. A square with sides of length 9

37. A triangle with sides 4, 10, and 12

Find the circumference of each circle given the following radius and diameter lengths.

38. $d = 12$

39. $d = 3.4$

40. $r = 2.1$

41. $r = 1.54$

42. Given the set of data: 65, 35, 48, 29, 57, 87, 94, 68, 86, 73, 58, 74, 85, 91, 88, and 97.

a) Make a stem-and-leaf plot of this data.

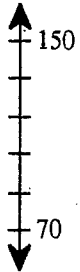
b) Find the mean, median, and mode of this data.

c) Find the range of this data

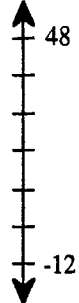
d) Make a box-and-whisker plot for this data

Scale each axis:

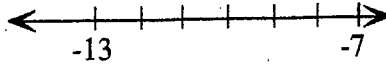
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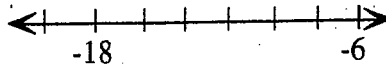
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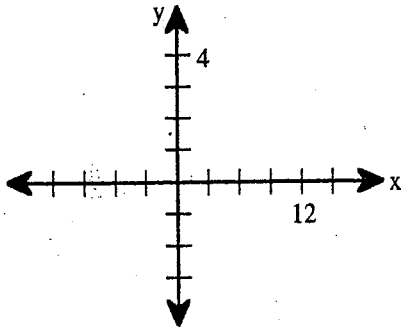
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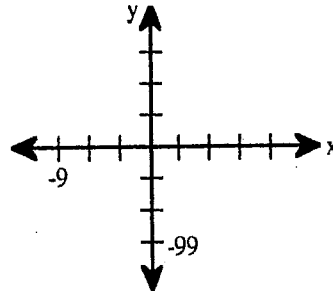
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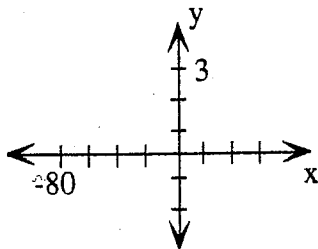
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50.

