Name:_____ Class:_____ Date:_____

Geometry Honors and College Prep **Summer Assignment**

Answer each question. Show all work were necessary.

State which metric unit you would probably use to measure the item.

1. mass of a book

2. length of a highway

Complete the sentence.

3. 8 in. = ___?__ ft

4. 6 yd = _____ ft

5. 24 fl oz = _____ pt

6. 3.7 kg = _____ lb

7. 4.2 km = _____ m

8. 285 g = _____ kg

9. 0.75 kg = _____ mg

10. 1.9 L = _____ qt

11. **PROBABILITY** The table shows the results of an experiment in which a number cube was rolled. Find the experimental probability of rolling a 4.

Outcome	Tally	Frequency
1	𝍸	4
2	𝍸 I	6
3	𝍸	5
4	III	3
5	𝍸 II	7

CANDY A bag of candy contains 3 lollipops, 8 peanut butter cups, and 4 chocolate bars. A piece of candy is randomly drawn from the bag. Find each probability.

12. P(peanut butter cup)

13. P(lollipop or peanut butter cup)

14. P(not chocolate bar)

15. P(chocolate bar or lollipop)

Evaluate each expression if $x = 2$, $y = -3$, and $z = 4$. Show all work.

16. $6x - z$

17. $6y + xz$

18. $3yz$

19. $\frac{6z}{xy}$

20. $\frac{y + 2x}{10z}$

21. $7 + |y - 11|$

Solve the equation. Show all work.

22. $9 + s = 21$

23. $h - 8 = 12$

24. $\frac{4m}{14} = 18$

25. $\frac{2}{9}d = 10$

26. $3(20 - b) = 36$

27. $37 + w = 5w - 27$

28. $\frac{x}{6} = 7$

29. $\frac{1}{4}(n+5)=16$

Solve the inequality. Show all work.

30. $4y - 9 > 1$

31. $-2z + 15 \geq 4$

32. $3r + 7 < r - 8$

33. $-\frac{2}{5}k - 20 \leq 10$

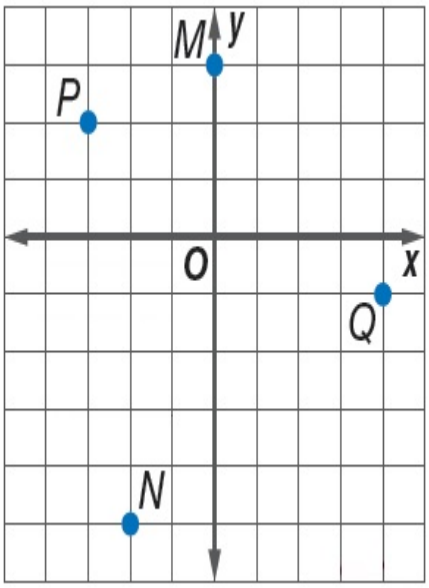
34. $-3(b - 4) > 33$

35. $2 - m \leq 6m - 12$

36. $8 \leq r - 14$

37. $\frac{2}{3}n < \frac{3}{9}n - 5$

Write the ordered pair for the point shown.



38. *M*

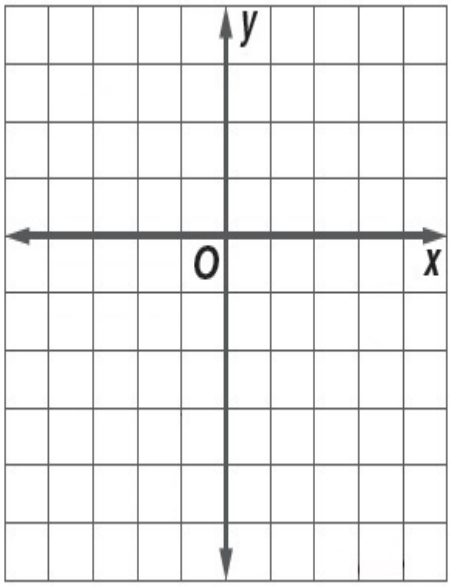
39. *N*

40. *P*

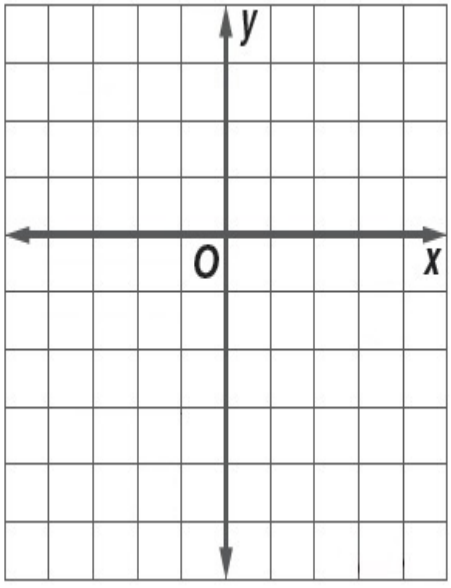
41. *Q*

Name and label the point on the coordinate plane.

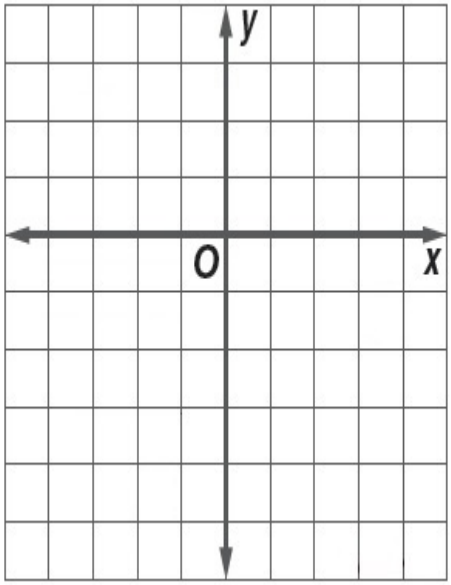
42. *A*(–2, 0)



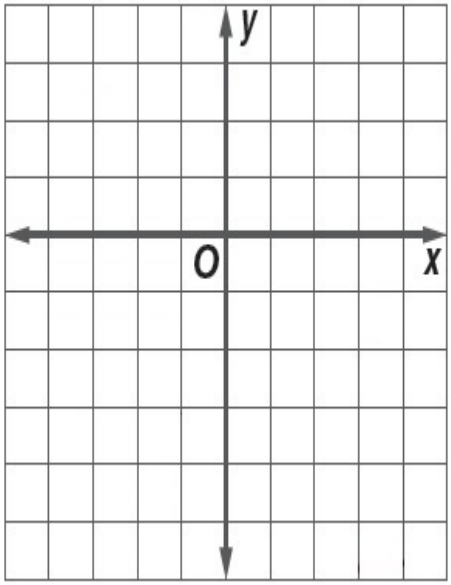
43. *C*(1, 3)



44. $D(-4, -4)$



45. $F(3, -5)$



46. Graph the quadrilateral with vertices $R(2, 0)$, $S(4, -2)$, $T(4, 3)$, and $W(2, 5)$.

47. Graph three points that satisfy the equation $y = \frac{1}{2}x - 5$.

In problems 48-53 solve each system of equations. Show all work.

48. $2r + m = 11$
$6r - 2m = -2$

49. $2x + 4y = 6$
$7x = 4 + 3y$

50. $2c + 6d = 14$
$-\frac{7}{3} + \frac{1}{3}c = -d$

51. $5a - b = 17$
$3a + 2b = 5$

52. $6d + 3f = 12$
$2d = 8 - f$

53. $4x - 5y = 17$
$3x + 4y = 5$

Simplify. Show work.

54. $\sqrt{80}$

55. $\sqrt{\frac{128}{5}}$

56. $(\sqrt{36}) \cdot (\sqrt{81})$

57. $\sqrt{\frac{7x^3}{3}}$

58. $\sqrt{\frac{5}{81}}$

59. $\sqrt{12x^5y^2}$

Find the slope of each line through each set of given points. Show all work.

60. $A(1, 0)\ and\ H\ (4, -2)$

61. $F(5, 2)\ and\ G\ (0, -3)$

62. $D\ (-3,\ 5) and\ P\ (-3, -2)$

63. $R\ (-7,\ 4\ )\ and\ S(6,\ 4)$