

Name: _____

Honors Geometry Summer Assignment

This packet includes material your teacher expects you to know when you begin the course. It is designed to be done over the course of the summer to provide practice and highlight the concepts you learned in your previous math course.

Instructions:

- Complete all work in the packet.
- If you need additional space, use looseleaf.
- Number your work and do the problems in order.
- Copy each problem before showing your work.
- Check your answers as you go (answers are included at the end of the packet).

The completed summer assignment is due on the first day of class and is worth *25 points*.

Honors Geometry Summer Review Packet

1. Find the GCF of the terms of the polynomial.

$$8x^6 + 32x^3$$

Simplify the product using FOIL.

2. $(3x - 7)(3x - 5)$

3. $(4x + 3)(2x + 5)$

Simplify the product using distributive property.

4. $(5h - 5)(5h - 6)$

Find the square.

5. $(2x - 6)^2$

6. $(8m + 7)^2$

7. Solve the equation by using square roots.

$$x^2 - 20 = -4$$

Factor the expression.

8. $w^2 + 18w + 77$

9. $d^2 + 10d + 9$

10. $k^2 + kf - 2f^2$

11. $x^2 - 10xy + 24y^2$

12. $2x^3 - 4x^2 - 8x$

13. $40w^{11} + 16w^6$

Simplify the radical expression. All variables represent positive numbers.

14. $\sqrt{1.69}$

15. $\sqrt{\frac{144}{49}}$

16. $-\sqrt{2500}$

17. $-4\sqrt{160}$

18. $-3\sqrt{180k^4}$

19. $-2\sqrt{2p} \cdot 2\sqrt{22}$

20. $\sqrt{\frac{10}{81}}$

$$21. \sqrt{\frac{80w^3}{9}}$$

$$22. \sqrt{\frac{400}{5}}$$

$$23. \sqrt{\frac{63x^{15}y^9}{7xy^{11}}}$$

$$24. \frac{4}{\sqrt{21}}$$

$$25. \frac{-\sqrt{100}}{\sqrt{500}}$$

26. $\sqrt{6} + 2\sqrt{6}$

27. $4\sqrt{7} + 8\sqrt{63}$

28. $(6 - \sqrt{11})(6 + \sqrt{11})$

29. $\sqrt{39}(\sqrt{6} + 7)$

30. $\frac{3}{4 + 4\sqrt{5}}$

31. $\frac{2 + 5\sqrt{3}}{-4 + 4\sqrt{2}}$

32. $(2\sqrt{5} + 3\sqrt{7})^2$

33. Find the number of real number solutions for the equation.

$$x^2 - 18 = 0$$

34. A square garden plot has an area of 24 ft^2 .

A. Find the length of each side in simplest radical form.

B. Calculate the length of each side to the nearest tenth of a foot.

Solve the equation using the zero-product property.

35. $(2x - 2)(5x - 5) = 0$

36. $-8z(10z - 1) = 0$

Solve the equation by factoring.

37. $x^2 - 6x - 27 = 0$

38. $3x^2 - 3x - 6 = 0$

39. $3x^2 - 27 = 0$

40. $15 = 8x^2 - 14x$

Find the slope of the line given the following points.

41. A (-3, -2), B (-1,2)

42. C (-4,0), D (0, -1)

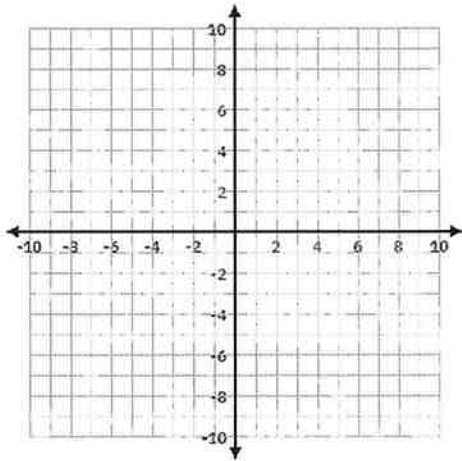
43. Find the equation of the line passing through the points J(-5,-4), K(0,-2) in slope intercept form.

44. Find the equation of the line, in slope intercept form, that passes through the given point and is parallel to the given equation. $(-5, -4)$ $y = \frac{1}{2}x + 1$

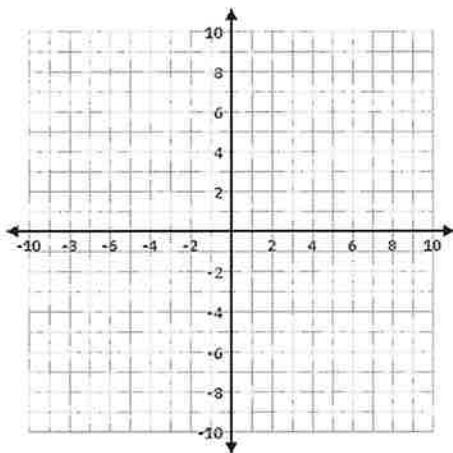
45. Find the equation of the line, in slope intercept form, that passes through the given point and is perpendicular to the given equation. $(-3, 1)$ $y = -3x + 7$

Identify the x-intercept and the y-intercept and graph.

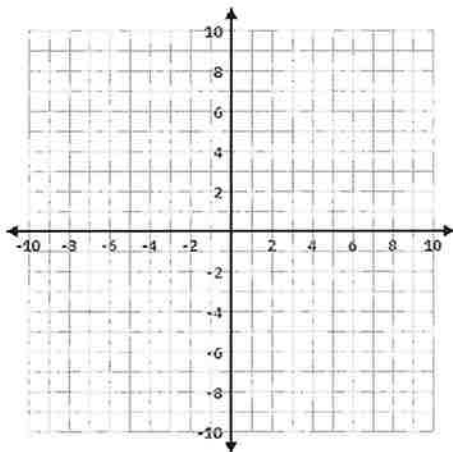
46. $y = 2x - 2$



47. $\frac{1}{2}x + y = 3$

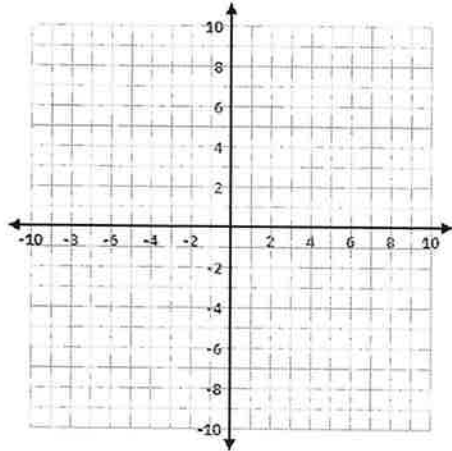


48. $-\frac{1}{2}y = x + 1$

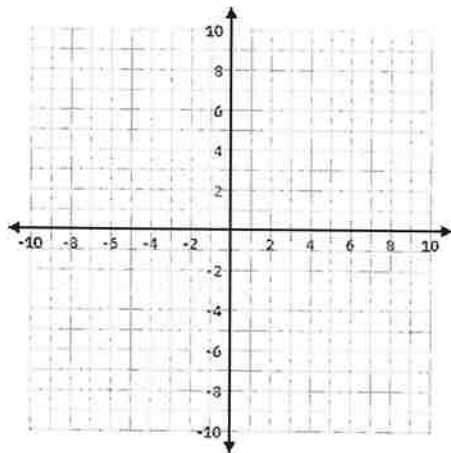


Graph the equation of the line using the slope and y-intercept.

49. $y = 3x - 2$

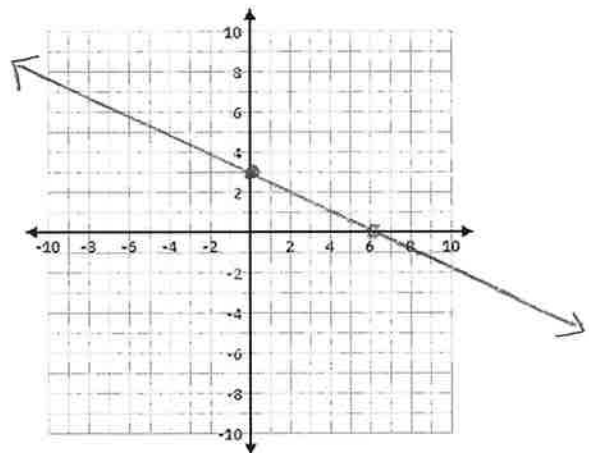
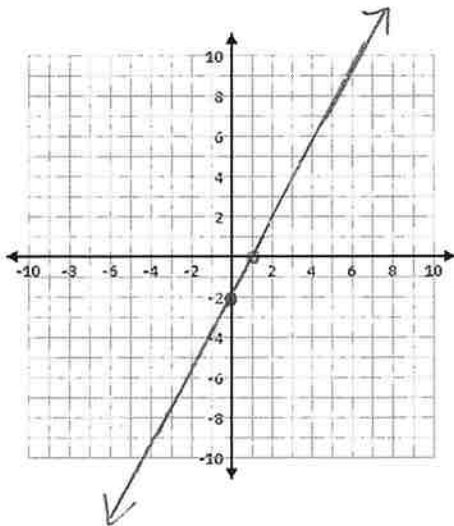


50. $y = -\frac{1}{2}x + 4$

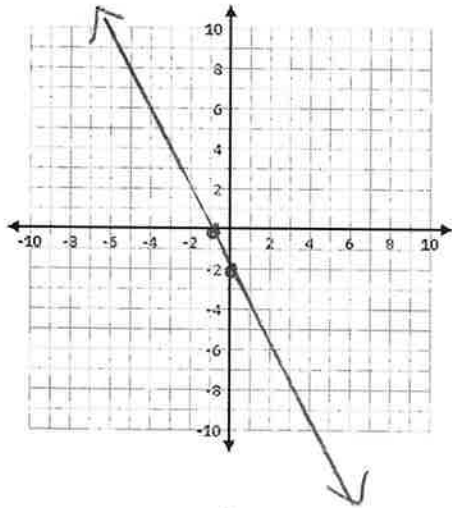


Honors Geometry Summer Review Packet Answer Section

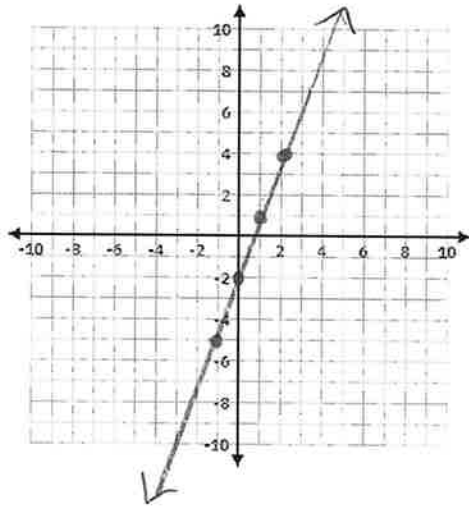
1. $8x^3$
2. $9x^2 - 36x + 35$
3. $8x^2 + 26x + 15$
4. $25h^2 - 55h + 30$
5. $4x^2 - 24x + 36$
6. $64x^2 + 112x + 49$
7. $x = \pm 4$
8. $(w + 7)(w + 11)$
9. $(d + 9)(d + 1)$
10. $(k + 2f)(k - f)$
11. $(x - 6y)(x - 4y)$
12. $2x(x^2 - 2x - 4)$
13. $8w^6(5w^5 + 2)$
14. 1.3
15. $\frac{12}{7}$
16. -50
17. $-16\sqrt{10}$
18. $-18h^2\sqrt{5}$
19. $-8\sqrt{11p}$
20. $\frac{\sqrt{10}}{9}$
21. $\frac{4w\sqrt{5w}}{3}$
22. $4\sqrt{5}$
23. $\frac{3x^7}{y}$
24. $\frac{4\sqrt{21}}{21}$
25. $\frac{-\sqrt{5}}{5}$
26. $3\sqrt{6}$
27. $28\sqrt{7}$
28. 25
29. $3\sqrt{26} + 7\sqrt{39}$
30. $\frac{12 - 12\sqrt{5}}{-64}$
31. $\frac{-2 - 2\sqrt{2} - 5\sqrt{3} - 5\sqrt{6}}{-4}$
32. $83 + 12\sqrt{35}$
33. $x = \pm 3\sqrt{2}$
34. **A.** $2\sqrt{6}$ ft **B.** 4.9 ft
35. $x = 1$
36. $m = 0, \frac{1}{10}$
37. $x = 9, -3$
38. $x = 2, -1$
39. $x = 3, -3$
40. $x = \frac{5}{2}, \frac{-3}{4}$
41. $m = 2$
42. $m = -\frac{1}{4}$
43. $y = \frac{2}{5}x - 2$
44. $y = \frac{1}{2}x - \frac{3}{2}$
45. $y = \frac{1}{3}x + 2$
- 46.
- 47.



48.



49.



50.

