

2022 Summer Packet for Students Entering Honors Geometry (320) Due Friday, 8/26

Name _____

Welcome to Honors Geometry! This packet contains the topics you have learned in your previous courses. Please read the directions, complete the problems (with all work shown), and be prepared to turn this in on the first day of school.

1) State which metric unit you would use to measure

a) the length of a computer keyboard _____

b) the mass of a large dog _____

Complete each sentence.

2) 4 ft. = _____ in.

3) 21 ft. = _____ yd.

4) 180 g = _____ kg

Probability

A bag contains 3 blue chips, 7 red chips, 4 yellow chips, and 5 green chips. A chip is randomly drawn from the bag. Find each probability.

5) P(yellow)

6) P(green)

7) P(red or blue)

8) P(not red)

Evaluate each expression if $a = 3$, $b = 1$, and $c = -2$.

9) $4a + b$

10) $\frac{a + 3b}{4a}$

11) $\frac{5c - b}{3a + b}$

12) $|2a - 5c| - ac$

Solve each equation.

13) $6x - 18 = 30$

14) $\frac{y}{4} = -8$

15) $\frac{3}{5}n - 4 = -2$

16) $27 - 6d = 2(7 + 4d)$

17) $x^2 - x = 12$

18) $y^2 - 49 = 0$

19) $2n^2 - 2 = 3n$

20) $a^2 - 3a - 1 = 0$

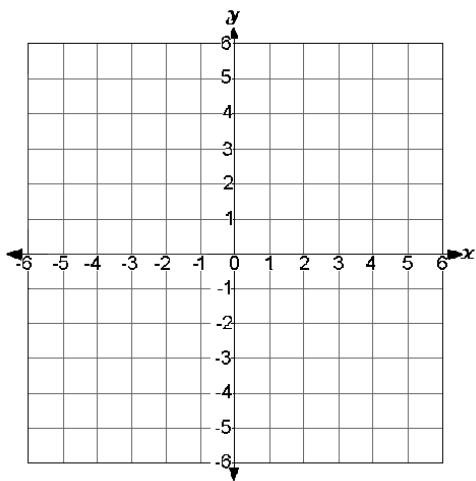
Solve and graph each inequality.

21) $y - 13 < 2$

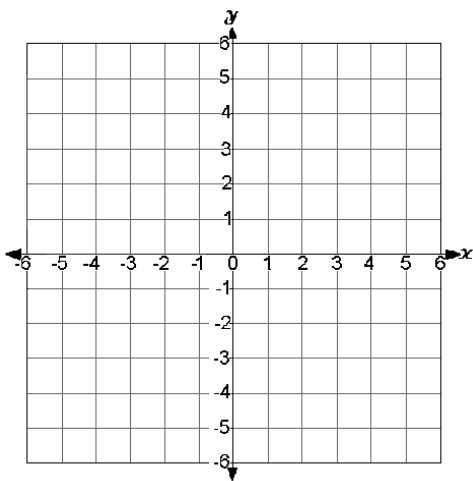
22) $\frac{-n + 3}{5} \leq -1$



Plot each point. 23) $A(-2, 4)$ 24) $B(0, -3)$ 25) $C(-2, -5)$ 26) $D(3, -2)$



27) Solve the system by graphing. $x + y = 2$ $2x - y = -5$



Solve by the substitution or mult./add. method.

28) $m = 4n$

$$3m - 2n = 20$$

29) $18a - 5b = 17$

$$6a + 10b = -6$$

Simplify.

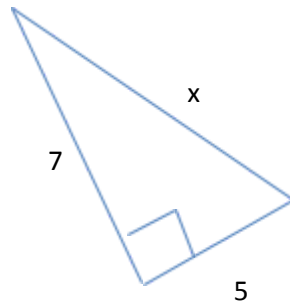
30) $\sqrt{18}$

31) $\sqrt{24x^2y^3}$

32) $\frac{3}{4-\sqrt{5}}$

Use the Pythagorean Theorem to find the value of the variable. Express your answer in simplest radical form and rounded to the nearest tenth.

33)



34)

