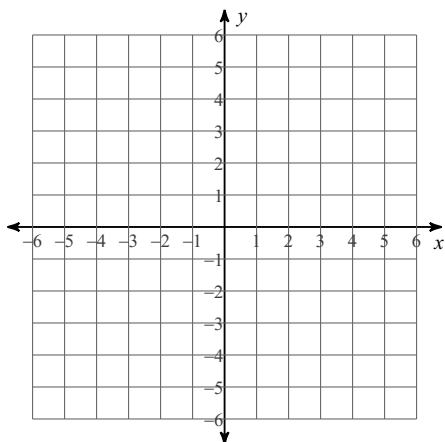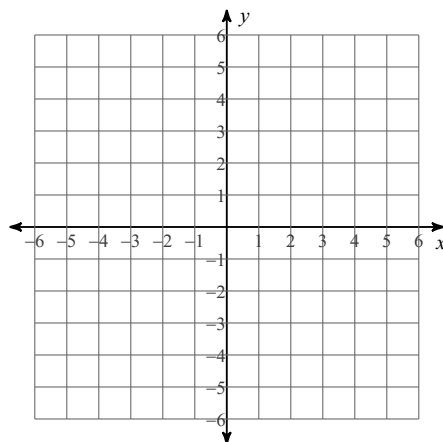Name_____

Quiz 1 Study Guide
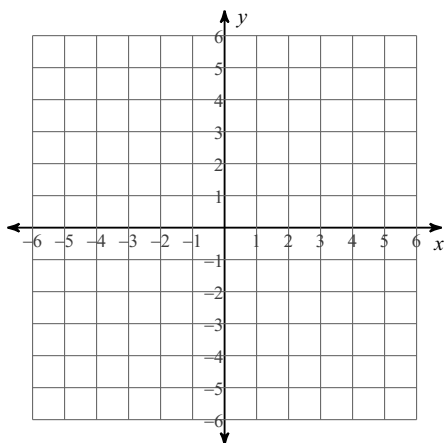
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Graph each equation.
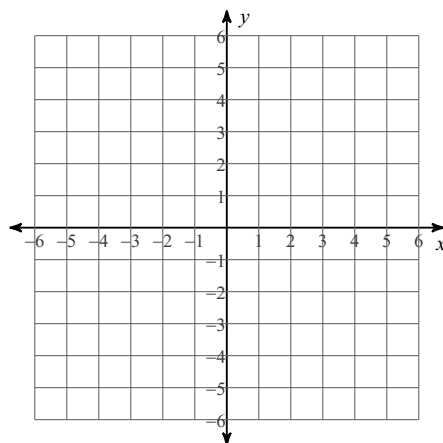
1) $y = |x + 4|$

2) $y = |x + 2| - 3$

3) $y = |x + 2| + 4$

4) $y = |x| - 3$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

5) through: $(-5, 5)$, slope = undefined

6) through: $(-3, -4)$, slope = 4

Write the standard form of the equation of the line through the given point with the given slope.

7) through: $(1, 3)$, slope = 6

8) through: $(-1, 4)$, slope = -8

Write the standard form of the equation of the line described.

9) through: $(3, 4)$, parallel to $y = \dfrac{5}{3}x + 5$

10) through: $(-4, -1)$, parallel to $y = \dfrac{1}{2}x + 3$

11) through: $(4, 1)$, perp. to $y = 4x - 4$

12) through: $(2, 2)$, perp. to $x = 0$

Find the value of x or y so that the line through the points has the given slope.

13) $(3, y)$ and $(4, 4)$; slope: 3

14) $(x, 4)$ and $(1, -3)$; slope: $-\dfrac{7}{3}$

15) $(2, 9)$ and $(8, y)$; slope: 0

16) $(x, 0)$ and $(-12, -8)$; slope: -4

17) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 3 vans and 4 buses with 244 students. High School B rented and filled 1 van and 12 buses with 668 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.

18) The senior classes at High School A and High School B planned separate trips to the state fair. The senior class at High School A rented and filled 4 vans and 6 buses with 338 students. High School B rented and filled 1 van and 3 buses with 158 students. Each van and each bus carried the same number of students. How many students can a van carry? How many students can a bus carry?

19) A boat traveled 247 miles downstream and back. The trip downstream took 13 hours. The trip back took 19 hours. What is the speed of the boat in still water? What is the speed of the current?

20) The school that Shayna goes to is selling tickets to a play. On the first day of ticket sales the school sold 13 adult tickets and 10 child tickets for a total of $231. The school took in $203 on the second day by selling 11 adult tickets and 9 child tickets. Find the price of an adult ticket and the price of a child ticket.