

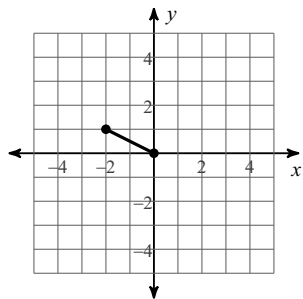
Summer Assignment

Find the distance between each pair of points.

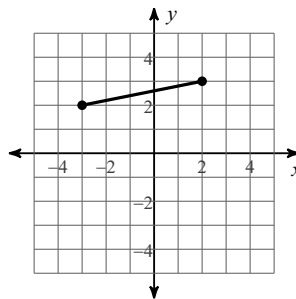
1) $(-8, 3), (-5, -6)$

2) $(5, -7), (2, 2)$

3)



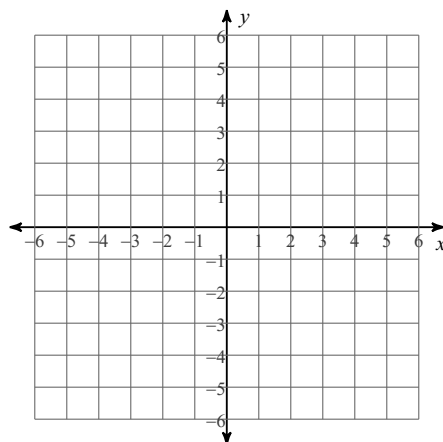
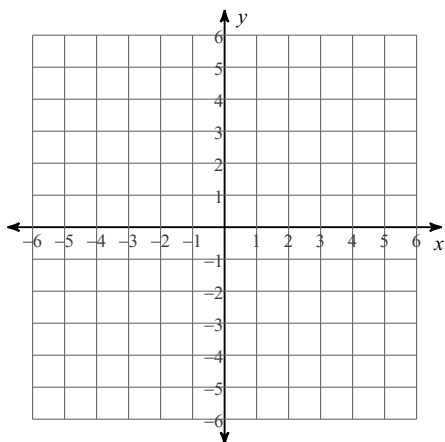
4)



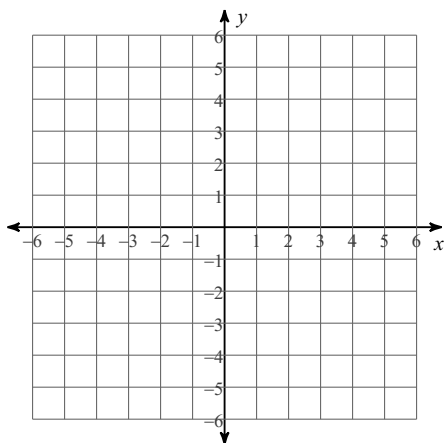
Sketch the graph of each line.

5) $8x + 5y = 15$

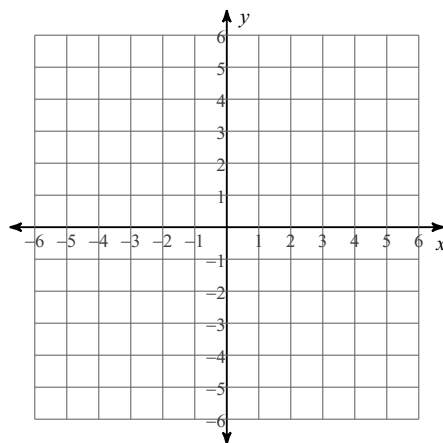
6) $10x - y = -5$



7) $y = 3x - 4$



8) $y = -x + 4$



- 9) The senior classes at High School A and High School B planned separate trips to the indoor climbing gym. The senior class at High School A rented and filled 5 vans and 14 buses with 569 students. High School B rented and filled 11 vans and 7 buses with 395 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.
- 10) A boat traveled 240 miles downstream and back. The trip downstream took 10 hours. The trip back took 60 hours. What is the speed of the boat in still water? What is the speed of the current?
- 11) A boat traveled 160 miles downstream and back. The trip downstream took 8 hours. The trip back took 16 hours. Find the speed of the boat in still water and the speed of the current.

Solve each proportion.

12) $\frac{2}{8} = \frac{x}{9}$

13) $\frac{3}{7} = \frac{n}{10}$

14) $\frac{x - 10}{9} = \frac{2}{3}$

15) $\frac{10}{3} = \frac{p + 2}{4}$

16) $\frac{6}{2} = \frac{x - 3}{x - 8}$

17) $\frac{4}{10} = \frac{r + 10}{r + 6}$

Solve each equation.

18) $-5(6 - 5r) = -205$

19) $88 = -2a + 7(2a + 4)$

20) $-3 + 6(7r - 1) = -177$

21) $5(-7 + n) - 6 = -81$

22) $5(1 + 3p) - 5 = -105$

Simplify.

23) $\sqrt{32x^3}$

24) $\sqrt{125b^2}$

25) $\sqrt{45n^2}$

26) $\sqrt{216x^4y^2}$

27) $\sqrt{32x^2y^3}$

28) $\sqrt{36x^4y^4}$

Solve each equation. Remember to check for extraneous solutions.

29) $16 = 8\sqrt{2p + 12}$

30) $64 = 8\sqrt{p - 5}$

Simplify.

31) $\frac{4\sqrt{3}}{\sqrt{2}}$

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

33) $\frac{5\sqrt{4}}{5\sqrt{3}}$

34) $\frac{3}{4\sqrt{3}}$