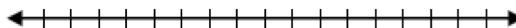


A1 w10d5 More 5-1

Alg 1 Week 10 Friday Warm-Up

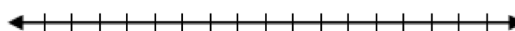
Skill 3: Solve and Graph Compound Inequalities on a Number Line

$$-3 - (4x + 1) \leq -2(4x - 5) + 6$$



Skill 4: Solve and Graph Absolute Value Inequalities and Equations

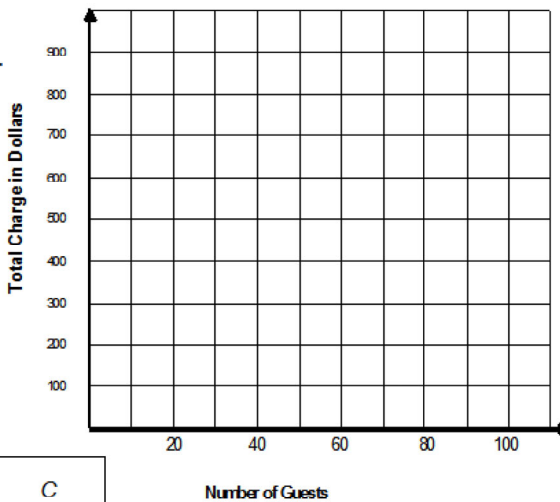
$$|3 - 2x| < 5$$



Skill 5: Evaluate and Graph a Function

A catering company charges \$10 per guest and a flat rate of \$200 to cater a luncheon. The function that represents this situation is $C(g) = 10g + 200$, where C represents the total charge in dollars and g represents the number of guests.

Use the function to graph the total charge over the number of people for up to 80 people.



| g | $C(g) = 10g + 200$ | C |
|-----|--------------------|-----|
| 0 | | |
| 10 | | |
| 40 | | |
| 60 | | |
| 80 | | |

****Use your graph to estimate the number of guests if the total charge is \$750.**

5-1 Rate of Change and Slope

Problem 3 Finding Slope Using Points

What is the slope of the line through $(-1, 0)$ and $(3, -2)$?

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$

Got It?

What is the slope of the line through each of these pairs of points?

- $(1, 3)$ and $(4, -1)$
- $(-3, 2)$ and $(1, 5)$

Problem 1 Finding Rate of Change Using a Table

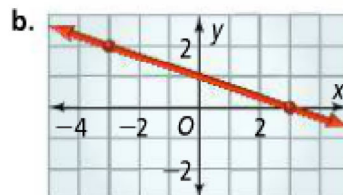
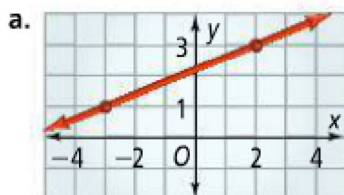
Marching Band The table shows the distance a band marches over time. Is the rate of change in distance with respect to time constant? What does the rate of change represent?

Distance Marched

| Time (min) | Distance (ft) |
|------------|---------------|
| 1 | 260 |
| 2 | 520 |
| 3 | 780 |
| 4 | 1040 |

Problem 2 Finding Slope Using a Graph

2. What is the slope of each line in parts (a) and (b)?



HW: p 298: 9-21 odd

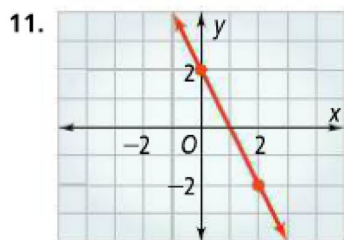
Determine whether each rate of change is constant. If it is, find the rate of change and explain what it represents.

◀ See Problem 1.

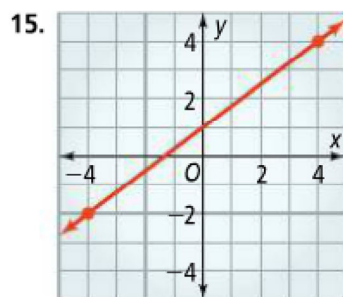
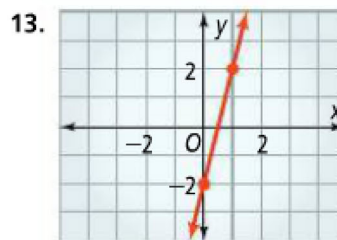
9. Hot Dogs and Buns

| Hot Dogs | Buns |
|----------|------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |

Find the slope of each line.



◀ See Problem 2.



Find the slope of the line that passes through each pair of points.

◀ See Problem 3.

17. $(0, 0), (3, 3)$

19. $(4, 4), (5, 3)$

21. $(-6, 1), (4, 8)$