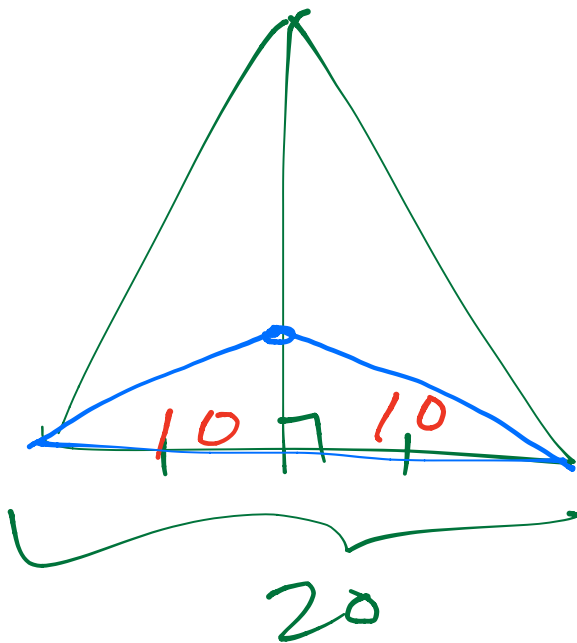
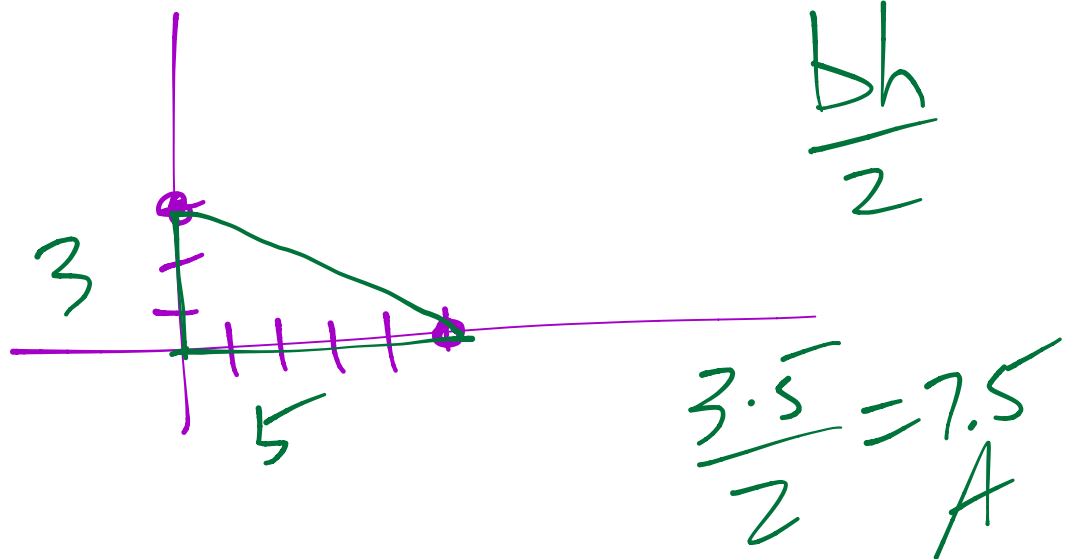
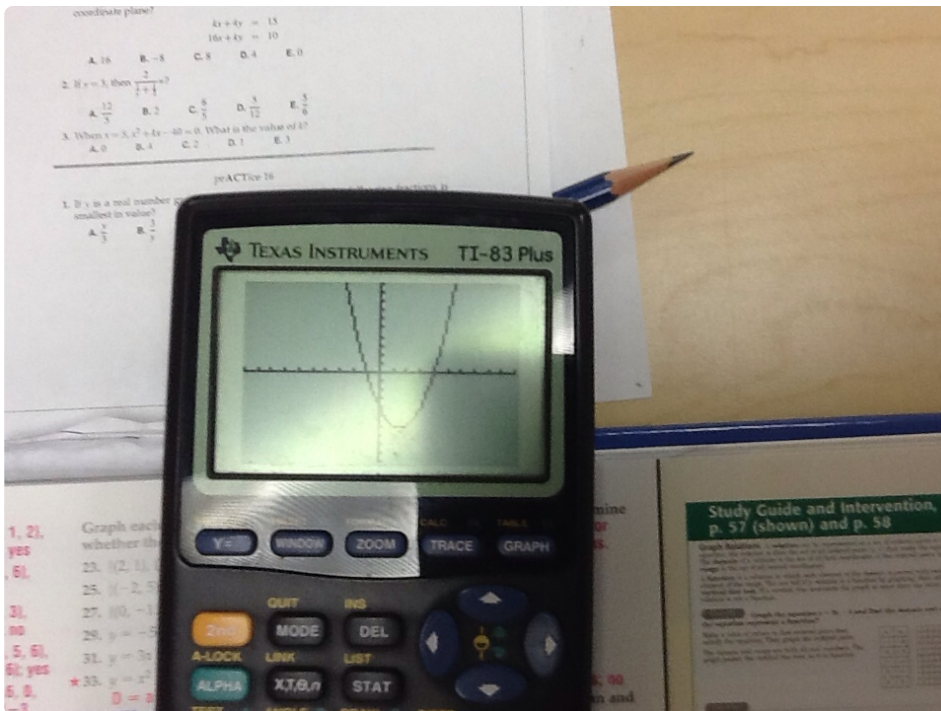
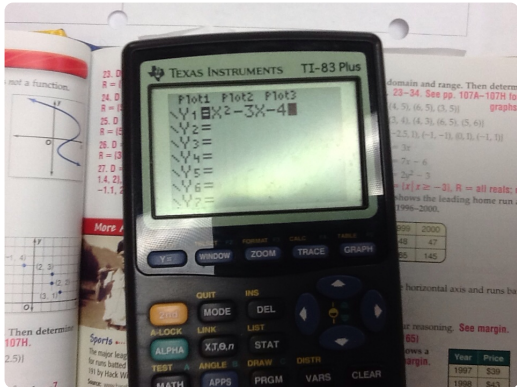


Please sit in homework groups. Do BW#12 and discuss homework. Remember to write questions on the board!!! Thank you!!



$$y = x^2 - 3x - 4$$



$$x\text{-int} \approx 4, -1 \quad E$$

hw

17-20

1. Find  $f(5)$

**Application WEATHER** For Exercises 13–16, use the table of record high temperatures (°F) for January and July.

City	Jan.
Los Angeles	88
Sacramento	70
San Diego	88
San Francisco	72

Source: U.S. National Oceanic and Atmospheric Administration

3.  $D = \{70, 72, 88\}$ ,  $R = \{95, 97, 105, 114\}$

4–16. See margin.

13. Identify the domain and range. Assume that the January temperatures are the domain.

14. Write a relation of ordered pairs for the data.

15. Graph the relation.

16. Is this relation a function? Explain.

indicates increased difficulty

**Practice and Apply**

Determine whether each relation is a function. Write *yes* or *no*.

**Homework Help**

For Exercises	See Examples
17–28	1, 2
29–32	3
33, 34	4
35–45, 55	2
46–54, 56	5

**Extra Practice**  
See page 830.

17.  $D = \{10, 20, 30\}$ ,  $R = \{1, 2, 3\}$  **yes**

18.  $D = \{3, 2, -1\}$ ,  $R = \{1, 3, 5, 7\}$  **no**

19. 

x	y
0.5	-3
2	0.8
0.5	8

**no**

20. 

x	y
2000	\$4000
2001	\$4300
2002	\$4000
2003	\$4500

**yes**

21. **yes**

22. **no**

Chapter 2 Linear Relations and Functions

Source: www.baseball-almanac.com

28.  $D = \{-2.5, -1, 0\}$ ,  $R = \{-1, 1\}$ ; no

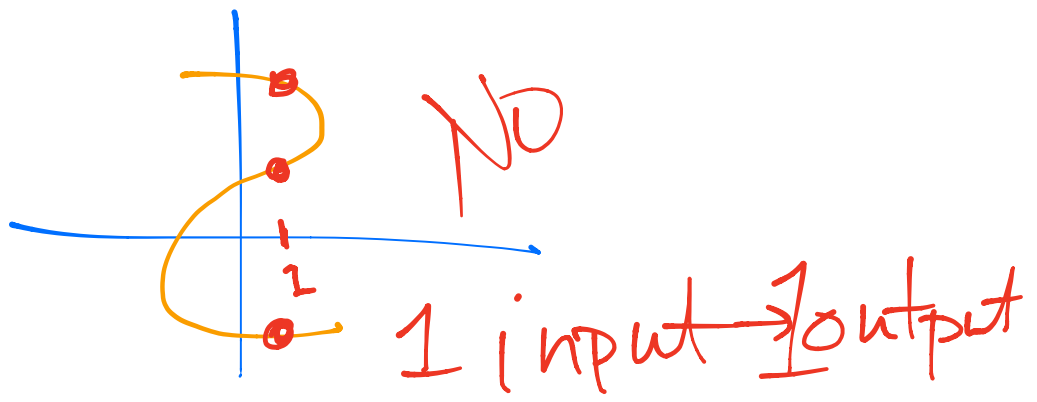
29.  $D =$  all reals,  $R =$  all reals; yes

30.  $D =$  all reals,  $R =$  all reals; yes

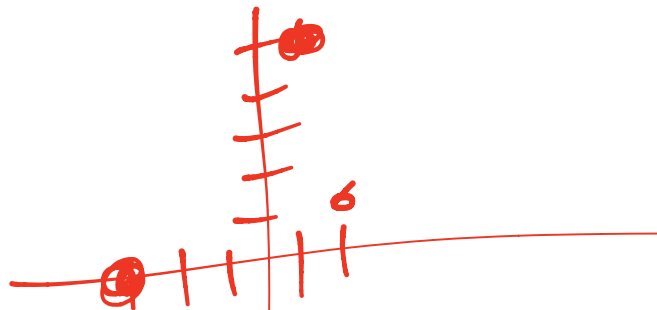
31.  $D =$  all reals,  $R =$  all reals; yes

32.  $D =$  all reals,  $R =$  all reals; yes

www.algebra.com



$$\textcircled{23} \{ (2, 1), (-3, 0), (1, 5) \}$$



$$D: \{2, -3, 1\} \text{ better } \{-3, 1, 2\}$$

$$R: \{1, 0, 5\} \text{ better } \{0, 1, 5\}$$

$$\textcircled{50} f(x) = 3x - 5$$

$$f(-2) = 3(-2) - 5$$

$$f(-2) = -6 - 5$$

$$f(-2) = -11$$

$$f(a) = 3a - 5$$

$$\textcircled{52} \quad f(x) = 3x + 2$$

$$f(2) = -3(2) + 2$$

$$f(2) = -6 + 2$$

$$f(2) = -4$$

$$\textcircled{53} \quad g(4) \Rightarrow g(x) = x^2 - 5$$

$$g(4) = 4^2 - 5$$

$$= 16 - 5$$

$$g(4) = 11$$

$$\textcircled{58} \quad g(x) = x^2$$

$$g(x+1) = ?$$

$$(x+1)^2$$

$$(x+1)(x+1)$$

$$x^2 + x + x + 1$$

$$\textcircled{x^2 + 2x + 1}$$

$\textcircled{C}$

$$\textcircled{58} \quad g(x) = x^2$$

$$g(x+1) = (x+1)^2$$

$(x+1)(x+1)$

$$x^2 + x + x + 1$$

$$g(x+1) = x^2 + 2x + 1$$

$$m = \frac{y_1 - y_2}{x_1 - x_2} \text{ OR } \frac{y_2 - y_1}{x_2 - x_1}$$