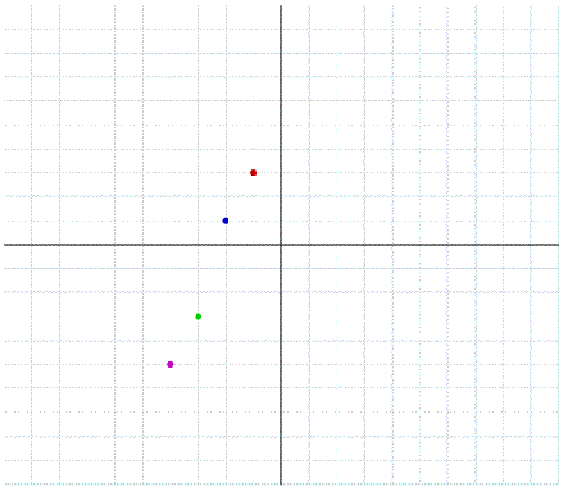
CHAPTER 2 ANSWERS

PROBLEM SET 2-1

1.



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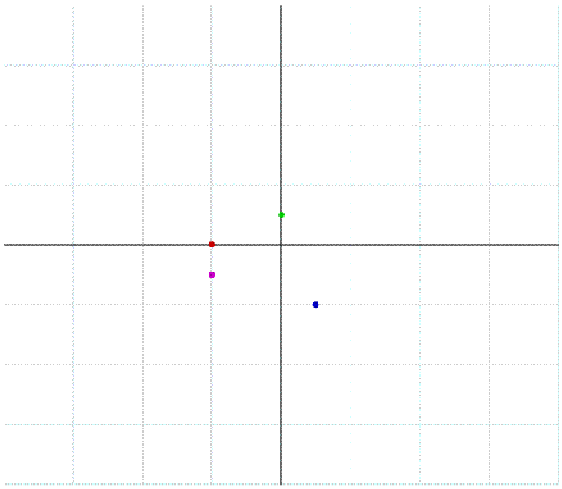
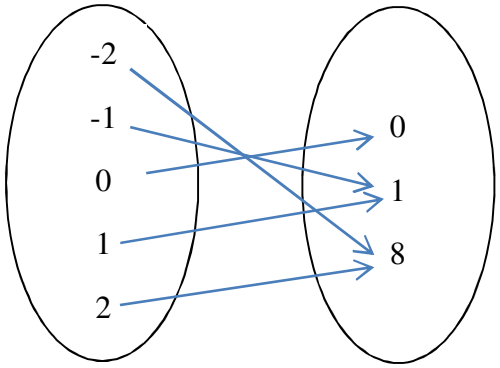
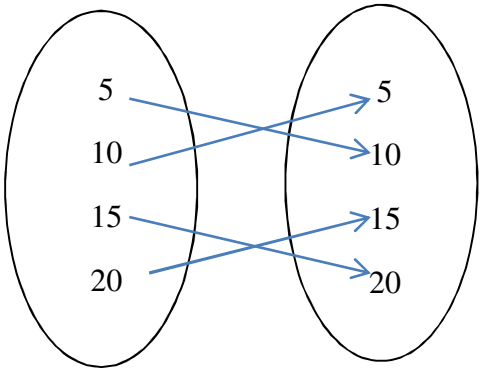


3. **D** **R**



4. **D** **R**



5. Yes

6. Yes

7. 13, 7, -3.5, -14

8. -2, -4, -7.5, -11

9. -13, -9, -2, 5

10. $-\frac{23}{6}, -\frac{13}{6}, \frac{3}{4}, \frac{11}{3}$

11. Domain = {– 4, – 3, – 2, – 1}

Range = {1, 2, 3, 4}

Function

12. Domain = $\{-\frac{3}{2}, \frac{1}{2}, \frac{3}{2}, \frac{5}{2}\}$

Range = $\{-\frac{1}{2}, \frac{1}{2}\}$

Function

13. Domain = $\{-2, -1, 0, 9\}$

Range = $\{2, 5, 7\}$

Not a function

14. Domain = $\{-3 \le x \le 3\}$

Range = $\{-2 \le y \le 2\}$

Not a function

15. Yes

16. No

17. -3 **18.** $-\frac{2}{3}$ **19.** $-4x - 14$ **20.** 7 **21.** $\frac{3}{4}$

PROBLEM SET 2-2

1. -1 **2.** 3 **3.** $-\frac{1}{5}$ **4.** Undefined

5. $\frac{17}{5}$ **6.** $-\frac{5}{13}$ **7.** $-\frac{7}{10}$ **8.** $\frac{3}{2}$

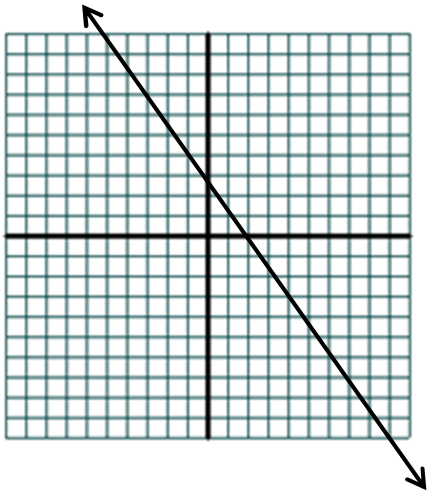
9. $-\frac{A}{B}$ **10.** 0

11. $5x - 6y = 38$ **12.** $y = -2$ **13.** $5x - y = -2$

14. $5x - 4y = 5$ **15.** $4x + 3y = -3$ **16.** $7x + 5y = 52$

17. $5x - 2y = -13$ **18.** $x = 1$

19.



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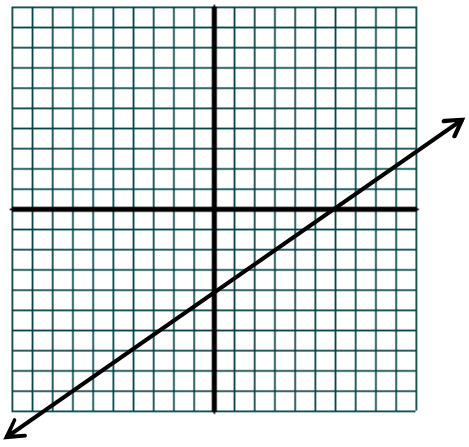

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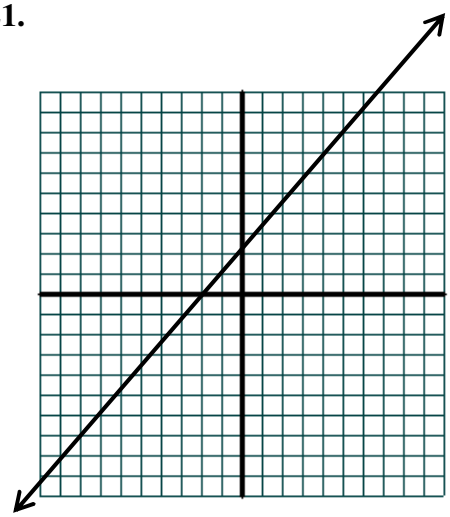

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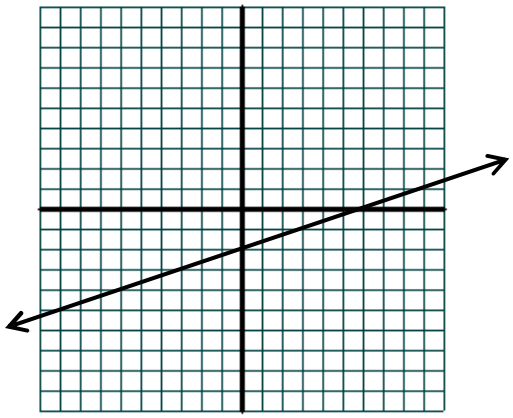

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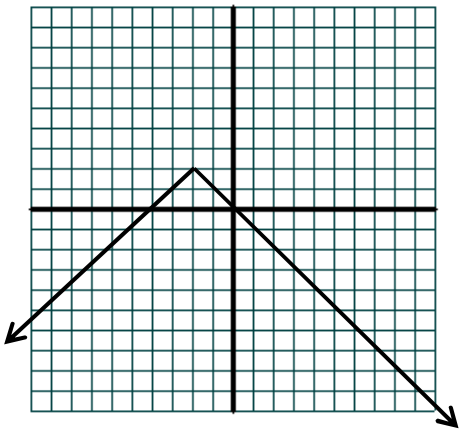
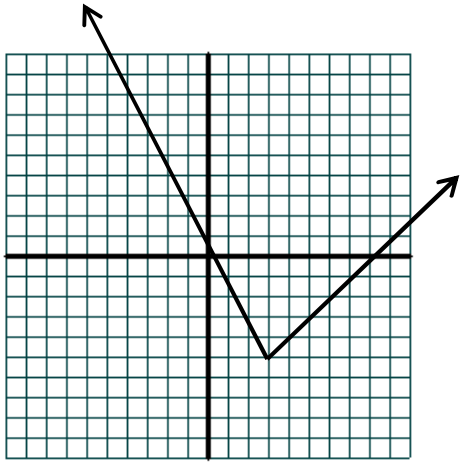
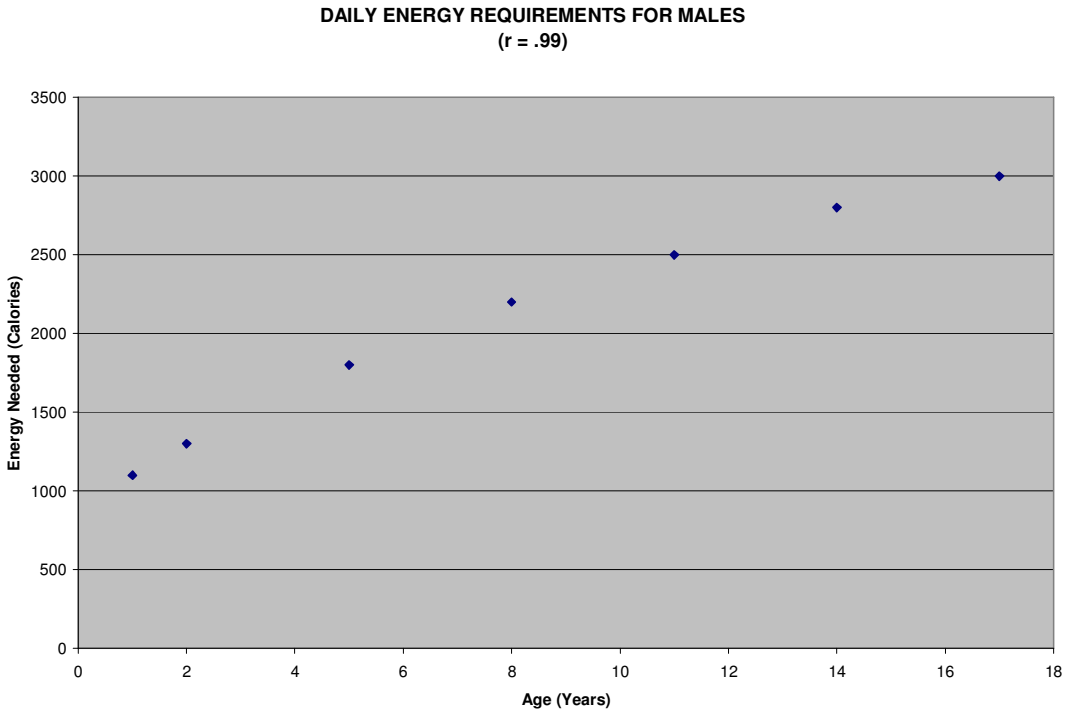


24 .



PROBLEM SET 2-4

1a)

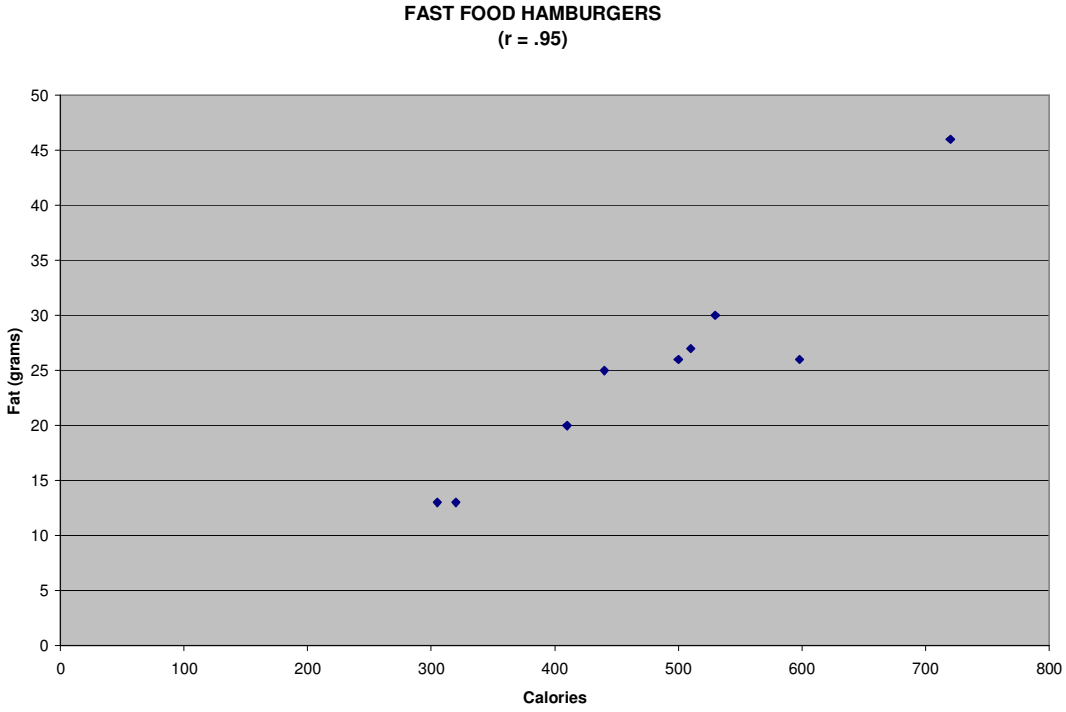


b) Energy Needed = 119.40(Age) + 1110.68

c) 3021.09 calories

d) No- adults need fewer calories (not more)

2a)



b) Fat Grams = .0714(Calories) – 9.2682

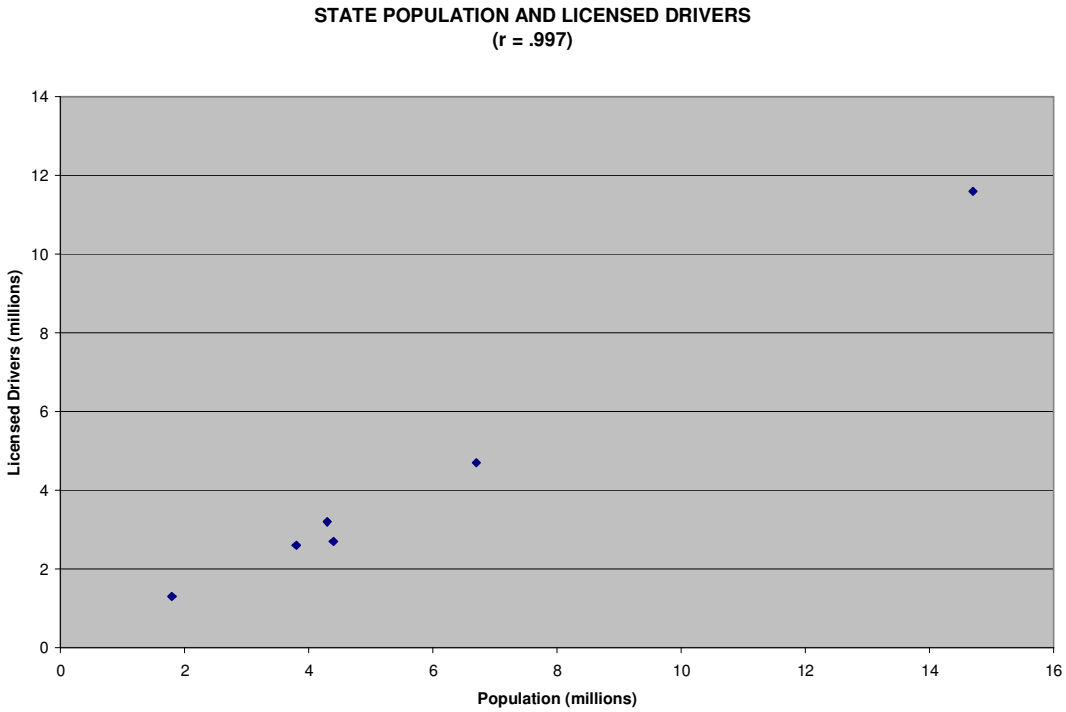
c) 14.30 grams

d) 200 calorie burger ---> 5.01 fat grams ---> 10 fat grams **not** reasonable

660 calorie burger ---> 37.86 fat grams ---> 36 fat grams reasonable

3a) Population (use to predict licensed drivers)

b)

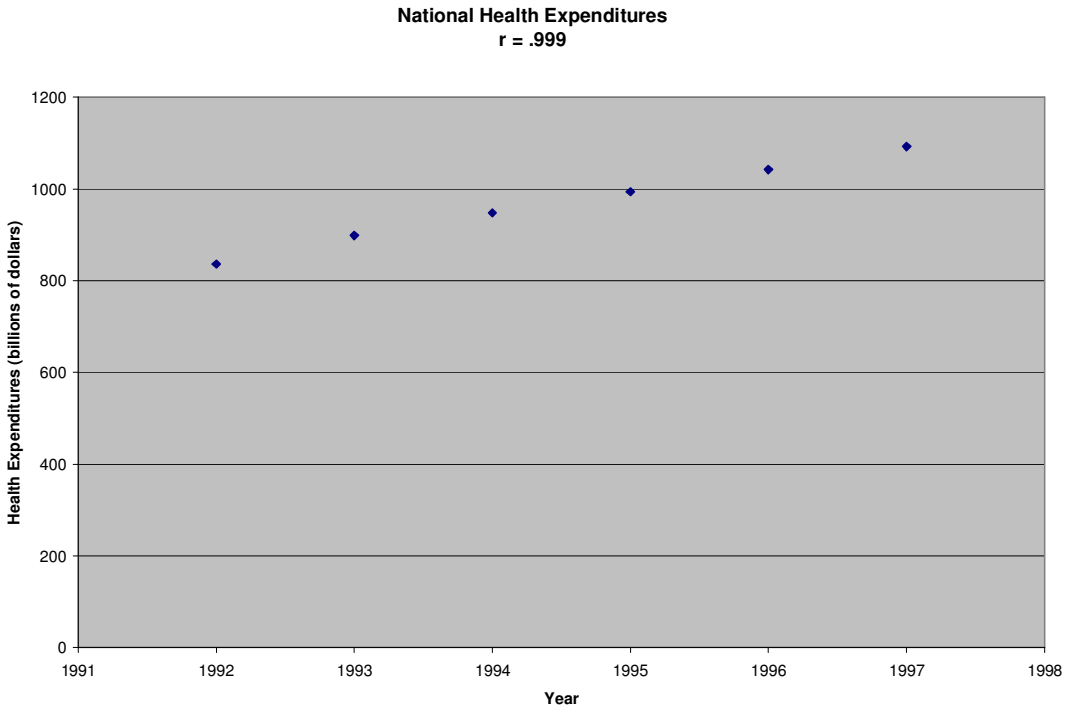


c) Licensed Drivers = .8125(Population) – .4842

d) 1.95 million

e) Strong correlation (99.7)… all points fall close to a straight line

4a)



b) Health Expenditures = 50.21(Year) – 99183.84

↑

1992, 1993…

Health Expenditures = 50.21(Year) – 3776.7

↑

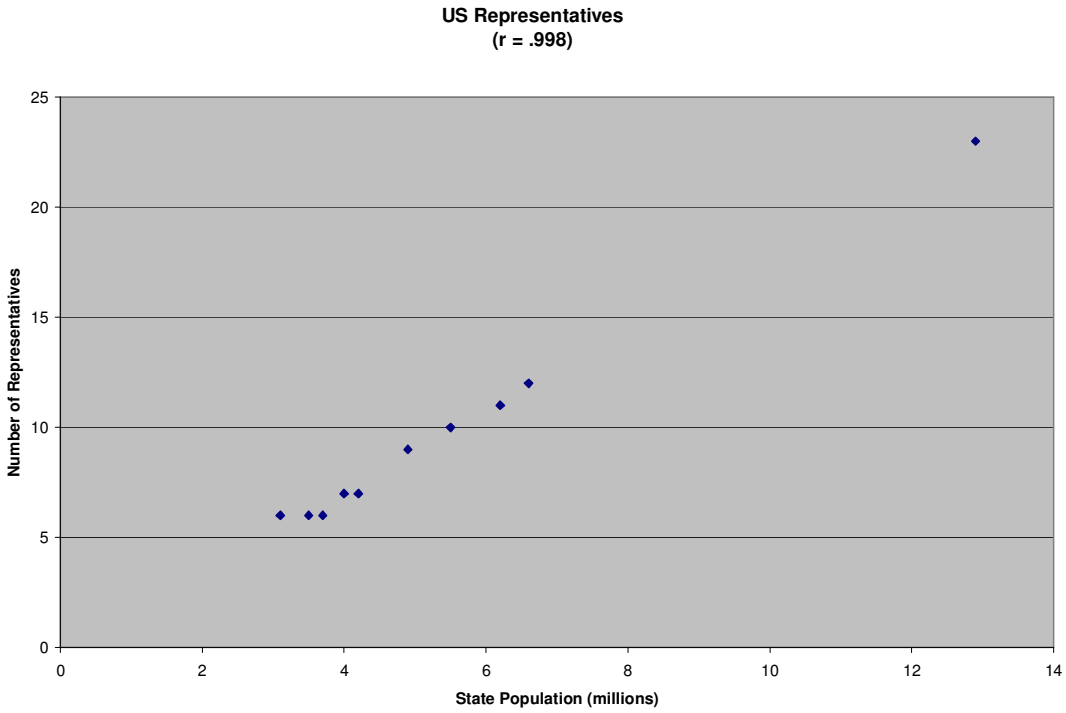
92, 93…

Health Expenditures = 50.21(Year) + 742.59

↑

2, 3…

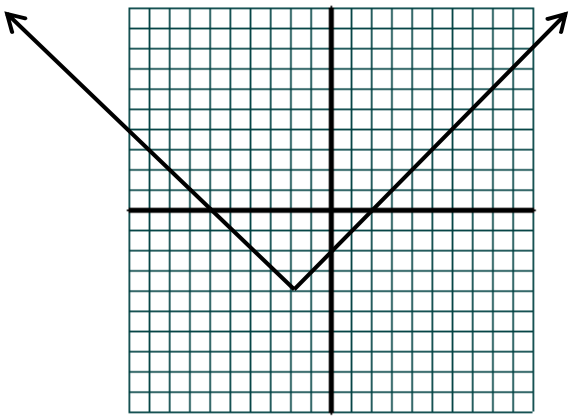
5a)



b) Number of Representatives = 1.80(Population) – .13

PROBLEM SET 2-5 AND 2-6

1.



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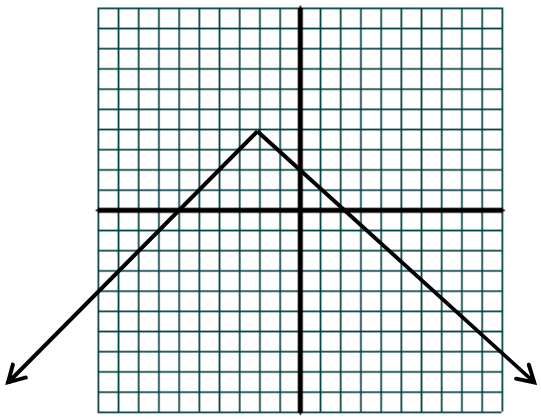

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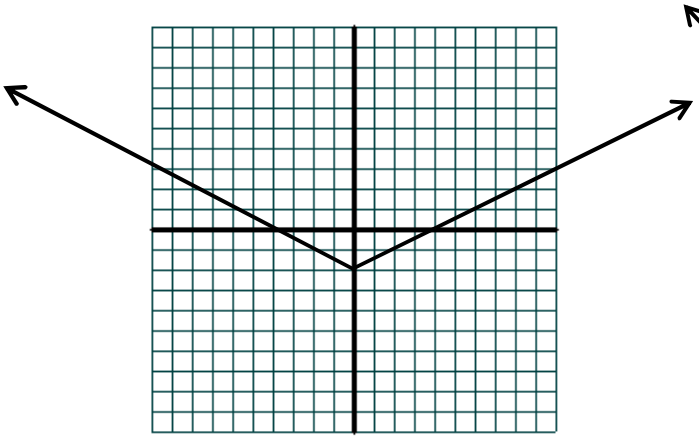

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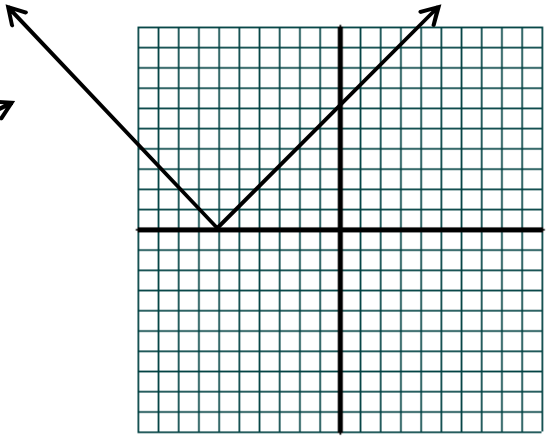

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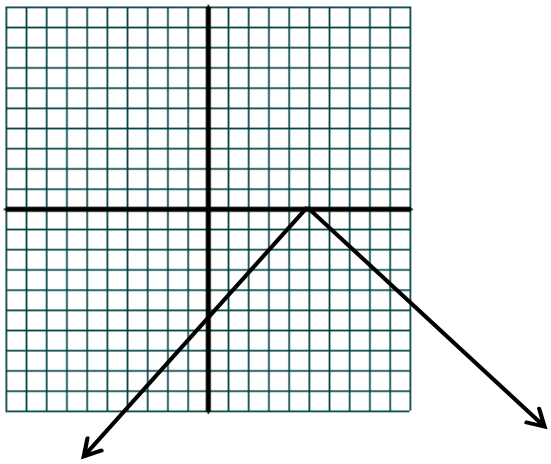

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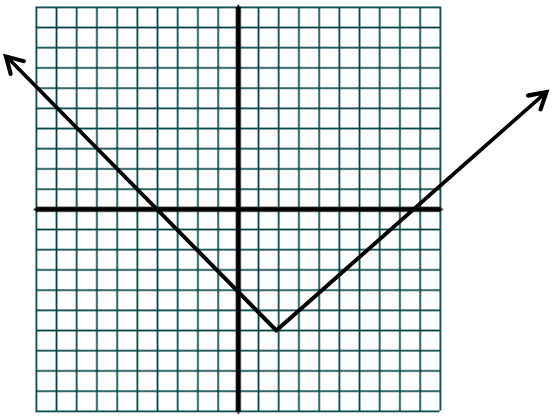

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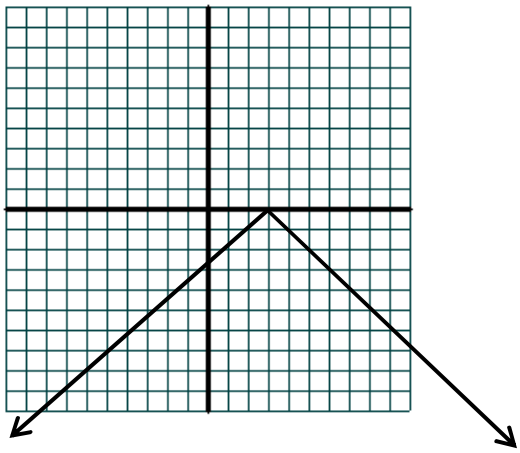

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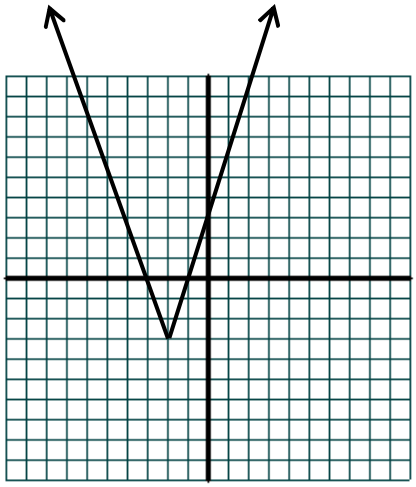

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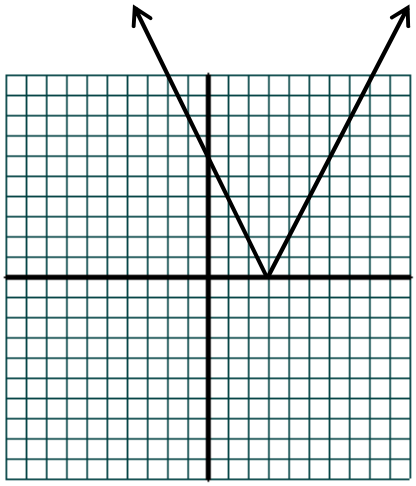

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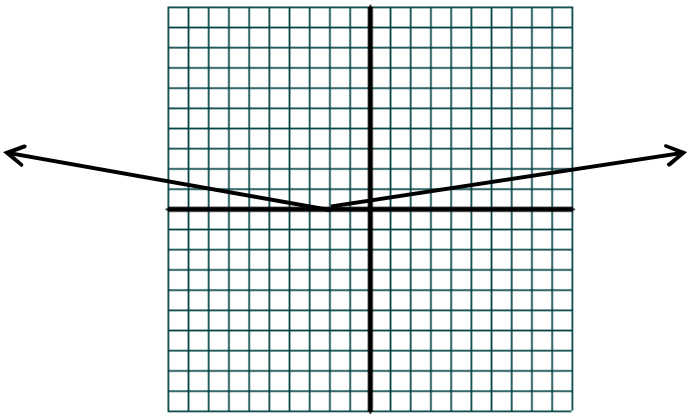

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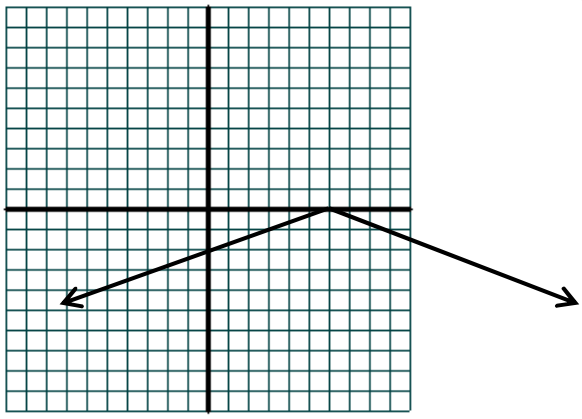

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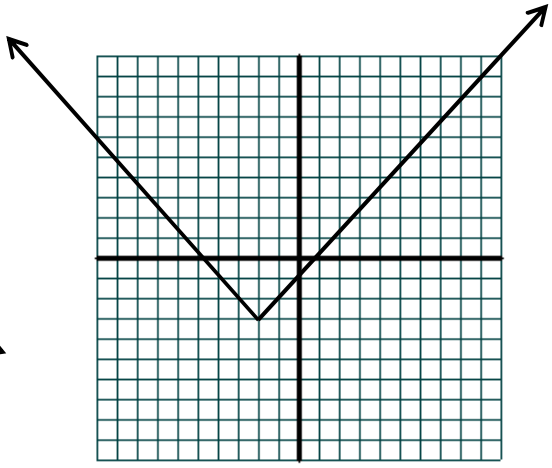

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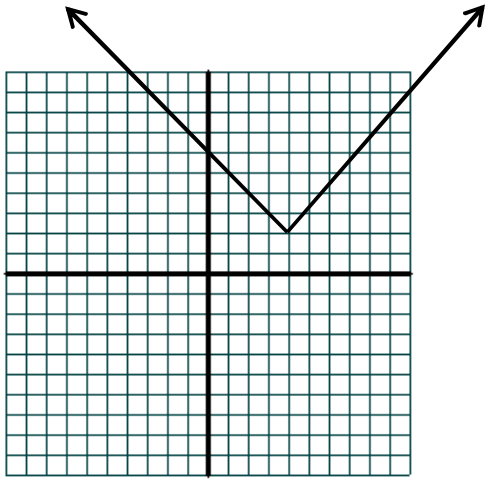

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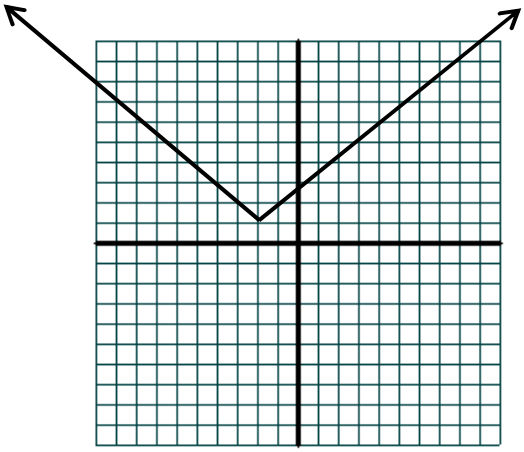

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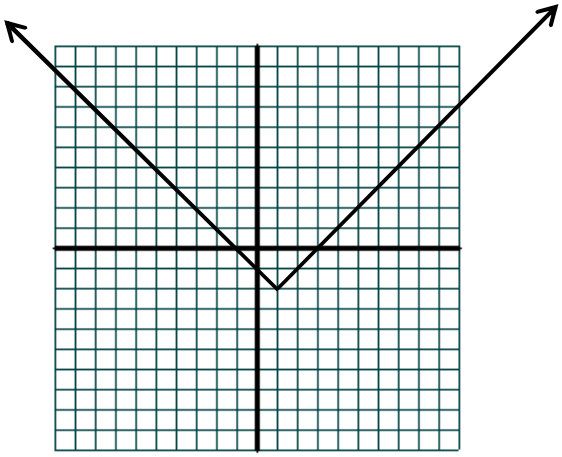

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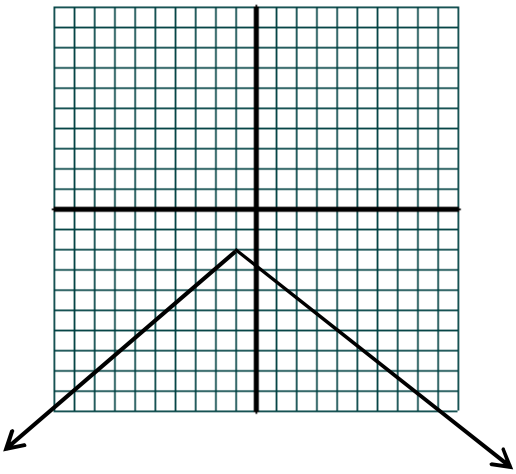

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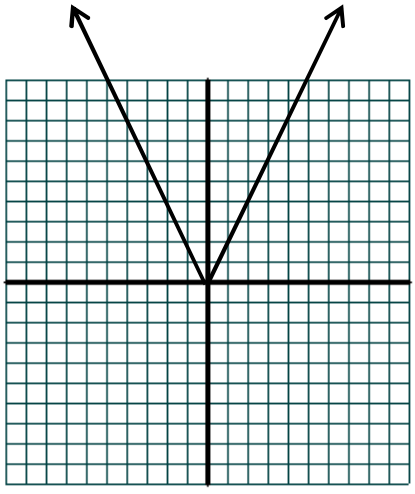

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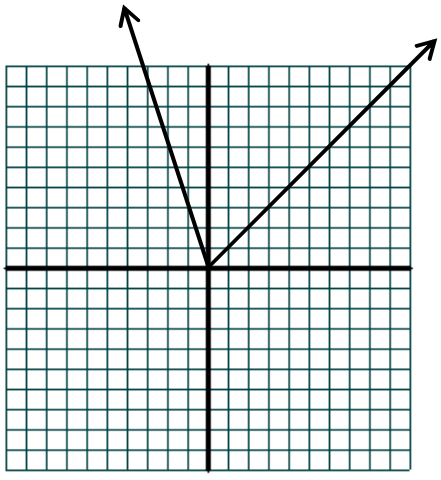
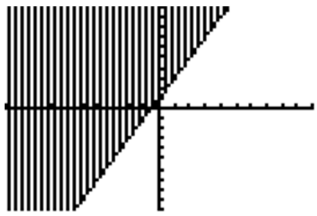
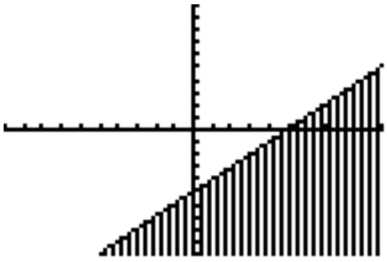


PROBLEM SET 2-7

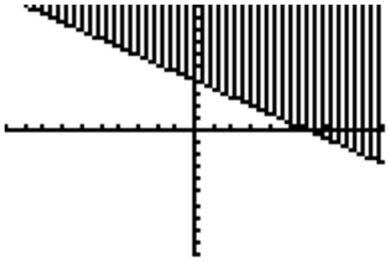
1. **Dotted**



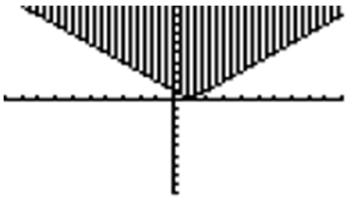
2. **Solid**



3. **Solid**

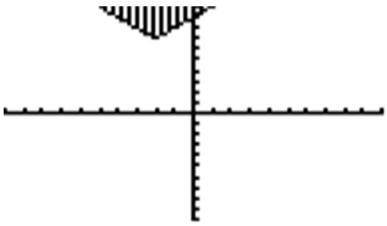


4. **Solid**

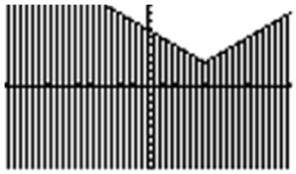


5. **Solid**

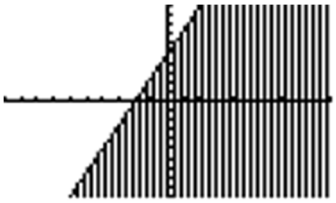
6. **Dotted**



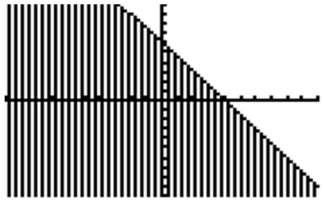
7. **Solid**



8. **Solid**



9. Solid



10. Dotted