Name:　　　　　　　　　Due Date:　　　　　　Teacher:　　　　　Parent Sign:

Questions (easy, 8th-grade level)

1. Given points (1,2),(2,3),(3,4),(4,5),(5,6): what is the direction? (Use legend)

2. Given points (1,6),(2,5),(3,4),(4,3),(5,2): what is the direction? (Use legend)

3. Given points (1,2),(2,2),(3,2),(4,2),(5,2): what is the direction? (Use legend)

4. Given points (1,1),(2,2),(3,3),(4,4),(5,5),(6,6): what is the direction? (Use legend)

5. Given points (1,10),(2,8),(3,6),(4,4),(5,2): what is the direction? (Use legend)

6. Given points (1,1),(2,2),(3,2.5),(4,3),(5,4): what is the direction? (Use legend)

7. Given points (1,5),(2,5),(3,4.9),(4,4.8),(5,4.7): what is the direction? (Use legend)

8. Given points (1,2),(2,4),(3,1),(4,3),(5,2): what is the direction? (Use legend)

9. Given points (1,1),(2,1.5),(3,1.4),(4,2),(5,2.1): what is the direction? (Use legend)

10. Given points (1,100),(2,80),(3,60),(4,40),(5,20): what is the direction? (Use legend)

11. Given points (1,2),(2,4),(3,6),(4,8): what is the strength? (Use legend)

12. Given points (1,10),(2,9),(3,7.5),(4,6): what is the strength? (Use legend)

13. Given points (1,1),(2,1.2),(3,1.1),(4,1.3): what is the strength? (Use legend)

14. Given points (1,50),(2,40),(3,30),(4,20): what is the strength? (Use legend)

15. Given points (1,2),(2,2.5),(3,3.6),(4,4.8): what is the strength? (Use legend)

16. Given points (1,2),(2,3),(3,1.8),(4,2.2),(5,2.6): what is the strength? (Use legend)

17. Given points (2,4),(3,6),(4,8),(5,10): what is the strength? (Use legend)

18. Given points (1,5),(2,4.5),(3,3.7),(4,3): what is the strength? (Use legend)

19. Using the first and last points, estimate the slope for points (1,2),(2,4),(3,6). (slope = $\frac{\Delta y}{\Delta x}$)

20. Using the first and last points, estimate the slope for points (1,10),(2,7),(3,4).

21. Using the first and last points, estimate the slope for points (0,0),(4,8).

22. Using the first and last points, estimate the slope for points (2,5),(6,9).

23. Using the first and last points, estimate the slope for points (1,1),(5,3).

24. Using the first and last points, estimate the slope for points (0,3),(3,0).

25. Using the first and last points, estimate the slope for points (1,2),(4,5).

Scatter plot: smokers — data for 8 people (persons 1 to 8)

Person 1: age 16, $\frac{cigs}{day}$ 0

Person 2: age 17, $\frac{cigs}{day}$ 1

Person 3: age 18, $\frac{cigs}{day}$ 3

Person 4: age 19, $\frac{cigs}{day}$ 4

Person 5: age 20, $\frac{cigs}{day}$ 6

Person 6: age 22, $\frac{cigs}{day}$ 8

Person 7: age 25, $\frac{cigs}{day}$ 12

Person 8: age 30, $\frac{cigs}{day}$ 15

26. For the smokers data above, what is the direction? (Use legend)

27. Estimate the slope using the minimum and maximum age points (age 16 & 30). Give the slope rounded to two decimals.

28. Using the smokers data, predict $\frac{cigarettes}{day}$ for age 21 by linear interpolation between ages 20 and 22.

29. What is the mean $\frac{cigarettes}{day}$ for the 8 people? Round to two decimals.

30. What is the median $\frac{cigarettes}{day}$?

31. How many people smoke more than 0 $\frac{cigarettes}{day}$?

32. How many people are age 18 or younger?

33. For the smokers data, what is the strength? (Use legend)

34. Estimate the slope between ages 18 and 25. Round to two decimals.

35. Predict $\frac{cigarettes}{day}$ for age 28 using linear interpolation between ages 25 and 30. Give answer to two decimals.

36. How many people smoke more than 5 $\frac{cigarettes}{day}$?

37. What is the range of ages? (max age - min age)

38. What is the range of $\frac{cigarettes}{day}$? (max - min)

39. Which person (1–8) has the highest $\frac{cigarettes}{day}$? Give the person number.

40. What is the total sum of $\frac{cigarettes}{day}$ for all 8 people?

41. Using the slope found between ages 16 and 30, round that slope to the nearest whole number.

42. Predict $\frac{cigarettes}{day}$ for age 17.5 using linear interpolation between ages 17 and 18.

43. What percentage of the 8 people are smokers ($\frac{cig}{day} > 0$)? Round to the nearest whole percent.

44. What is the mean age of the 8 people? Round to one decimal place.

45. How many people are age 20 or older?

46. What is the $\frac{cigarettes}{day}$ increase per year between ages 19 and 22? Give answer to two decimals.

47. Predict $\frac{cigarettes}{day}$ for age 24 using linear interpolation between ages 22 and 25. Give answer to two decimals.

48. How many people have $\frac{cigarettes}{day}$ 4?

49. If a 9th person is added (age 21, $\frac{cigs}{day}$ 9), by how much does the average $\frac{cigarettes}{day}$ increase? Give answer rounded to two decimals.

50. Estimate the slope between ages 16 and 20. Give answer to two decimals.