

D

Thematics Packet

#9-12
D.8

#29-32

ms #13-16 SPID.8	Day 5 Problems #17-20 SPID.6, SPID.7
ms #33-36	Day 10 Problems #37-40 NRNS.1

Name: _____

Date: _____

1. A set of data consists of 3, 3, 6, 4, and 9. The median for these data is
- A. 6 B. 5 C. 3 D. 4

5. Thirteen students took a math test. The number of errors was 3, 7, 4, 0, 4, 1, 5, 4, 7, 3, 4, 5, and 7. What is the mode of this distribution?

2. Pat's grades on Course I tests were 90, 75, 98, 82, 90, and 87. The mode of her grades is
- A. 90 B. 89 C. 87 D. 82

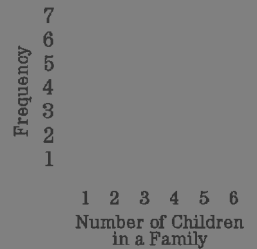
7. The accompanying histogram shows the distribution of the number of children in the families of the students in a ninth-grade class.

The mode of the set of data in the histogram is

3. What is the median of the following group of numbers?



- A. 6 B. 8 C. 9 D. 10



4. The set of scores on a mathematics test is 72, 80, 80, 82, 87, 89, and 91. The mean score is

8. In six computer games, Olga scored 122, 138, 120, 99, 103, and 124. What was the mean of her scores?

9. Find the range of the following data: 72, 89, 41, 73, 72, 91

10. Which statement is true about the data set 3, 4, 5,

- A. mean = mode B. mean > mode
 C. mean = median D. mean < median

11. What could be the approximate value of the correlation coefficient for the accompanying scatter plot?

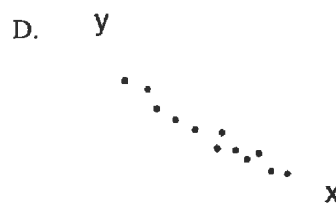
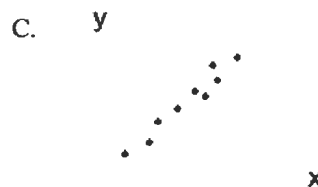
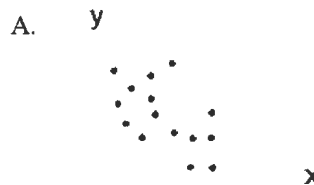
y



x

- A. -0.85 B. -0.16 C. 0.21 D. 0.90

12. Which graph represents data used in a linear regression that produces a correlation coefficient closest to -1 ?



13. Which scatter diagram shows the strongest positive correlation?

A. 

B. 

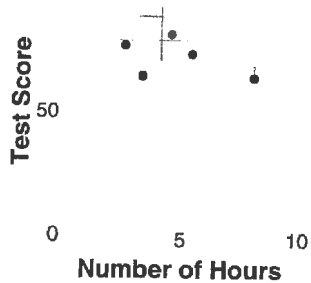
C. 

14. In the physics lab, Thelma determined the kinetic energy, KE , of an object at various velocities, V , and found the linear correlation coefficient between KE and V to be $+0.8$. Which graph shows this relationship?

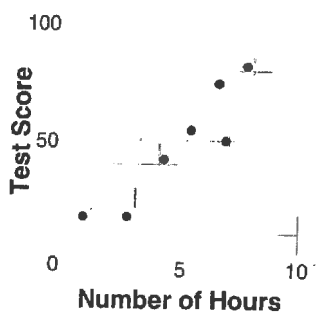
A. 

15. There is a negative correlation between the number of hours a student watches television and his or her social studies test score. Which scatter plot below displays this correlation?

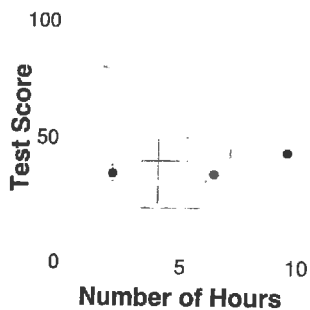
A.



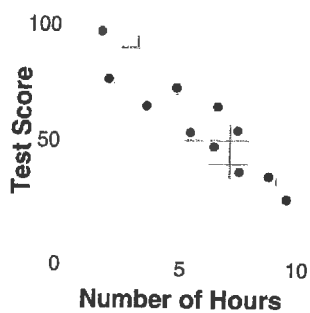
B.



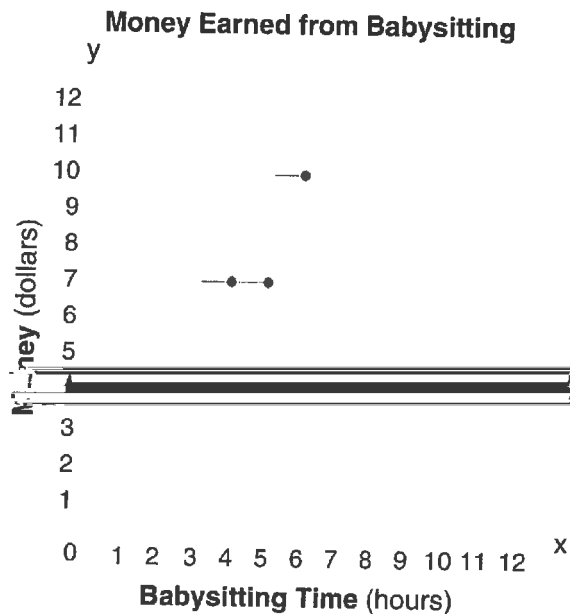
C.



D.



16. Which equation most closely represents the line of best fit for the scatter plot below?



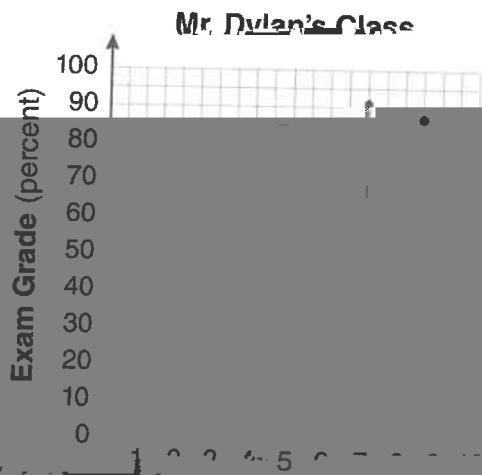
A. $y = x$

B. $y = \frac{2}{3}x + 1$

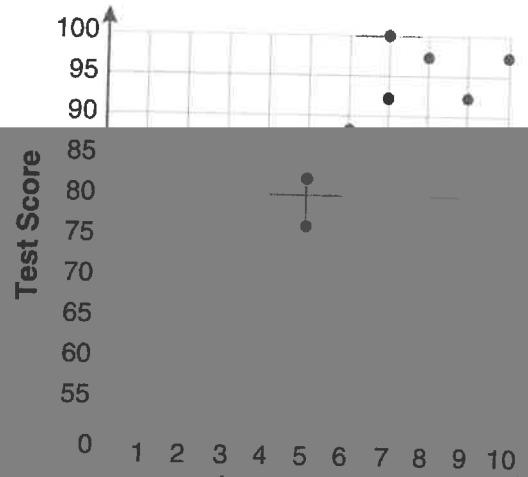
C. $y = \frac{3}{2}x + 4$

D. $y = \frac{3}{2}x + 1$

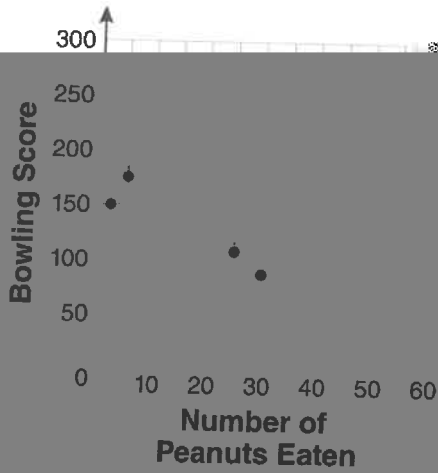
17. The number of hours spent on math homework each week and the final exam grades for twelve students in Mr. Dylan's algebra class are plotted below.



18. What is the relationship between the independent and dependent variables in the scatter plot shown below?



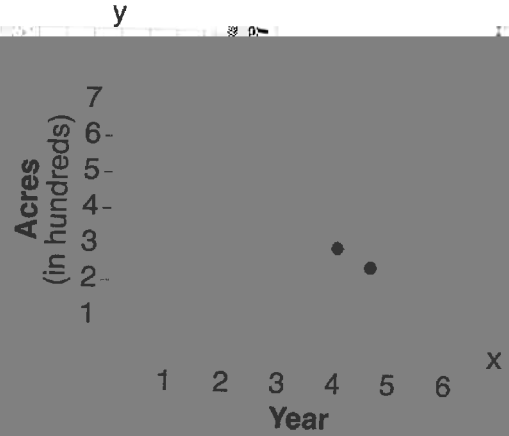
19. The scatter plot below represents the relationship between the number of peanuts a student eats and the student's bowling score.



Which conclusion about the scatter plot is valid?

- A. There is almost no relationship between eating peanuts and bowling score.
- B. Students who eat more peanuts have higher bowling scores.
- C. Students who eat more peanuts have lower bowling scores.
- D. No bowlers eat peanuts.

20. The graph below illustrates the number of acres used for farming in Smalltown, New York, over several years.



Using a line of best fit, approximately how many acres will be used for farming in the 5th year?

- A. 0
- B. 200
- C. 300
- D. 400

21. Which are the common factors of 12 and 16?

- A. {1, 2, 4}
- B. {1, 2, 3, 4, 8}
- C. {1, 2, 4, 6, 8}
- D. {1, 2, 3, 4, 6, 8}

22. Which statement is true?

- A. The only factors of 8 are 1 and 8.
- B. The only factors of 9 are 1 and 9.
- C. The only factors of 10 are 1 and 10.
- D. The only factors of 11 are 1 and 11.

23. Which number is a common factor of 36 and 56?

- A. 4 B. 6 C. 8 D. 9

24. Kelly chose a mystery number. Her mystery number is a factor of 38. Which number could be Kelly's mystery number?

- A. 2 B. 3 C. 4 D. 8

28. The student council is making gift bags for a fund raiser. They have 105 bags, 150 pens, 115 notebooks, 330 pencils, and 190 highlighters. If each gift bag consists of one bag, 2 pens, 1 notebook, 3 pencils, and 2 highlighters, what is the greatest number of gift bags that can be made?

- A. 75 B. 95 C. 105 D. 110

29. A pet store has 24 hamsters, 36 rabbits, and 42 mice. The store is making gift bags for a fund raiser. Each gift bag contains 2 hamsters, 3 rabbits, and 6 mice. What is the greatest number of gift bags that can be made?

25. If a whole number is divided by another whole number, the quotient is always a whole number. Which of the following pairs of numbers does not illustrate this property?
A. 12 and 3
B. 15 and 5
C. 18 and 6
D. 21 and 7

26. Which is the greatest common factor (GCF) of 36 and 78?

- A. 4 B. 6 C. 9 D. 13

27. What greatest common factor should be used to reduce the fraction $\frac{14}{70}$ to its simplest form?

- A. 2 B. 7 C. 10 D. 14

30. For an assembly, 105 chairs will be set up using the fewest possible rows.

- There will be the same number of chairs in each row.
- There will be more than one row of chairs.

What will be the number of **chairs** in each row?

- A. 3 B. 5 C. 21 D. 35

31. Simplify the expression.

$$\frac{1}{8} + (-\frac{1}{2})^3 - (\frac{1}{4})^2$$

- A. $-\frac{1}{2}$ B. $-\frac{1}{16}$ C. $\frac{1}{6}$ D. $\frac{3}{16}$

- A. $\frac{1}{25}$ C. $\frac{1}{5}$ D. $\frac{3}{14}$

$$4\left(\frac{1}{2} + \frac{3}{8}\right) - \frac{5}{8}$$

- A. $1\frac{1}{8}$ B. 2 C. $2\frac{1}{4}$ D. $5\frac{3}{4}$

$$3 - 4\left(\frac{1}{2}\right) + 7$$

- A. 3 B. $6\frac{1}{2}$ C. $7\frac{1}{2}$ D. 8

34. What is the value of $\left(\frac{1}{8}\right)^2$?

- A. $\frac{1}{64}$ B. $\frac{1}{32}$ C. $\frac{1}{16}$ D. $\frac{1}{4}$

35. Subtract $-\frac{2}{3} - \left(-\frac{2}{5}\right)$

- A. $-1\frac{1}{15}$ B. $-\frac{4}{15}$ C. $\frac{4}{15}$ D. $1\frac{1}{15}$

37. Which is equal to $\sqrt{1800}$ in simplest radical form?

- A. $2\sqrt{900}$ B. $10\sqrt{18}$
C. $30\sqrt{2}$ D. 60

38. $\sqrt{16} + \sqrt[3]{8} =$

- A. 4 B. 6 C. 9 D. 10

39. What is the simplified form of the expression $\sqrt{450}$?

- A. $15\sqrt{2}$ B. $45\sqrt{2}$
C. $75\sqrt{2}$ D. $225\sqrt{2}$