Day 3 Act. #99 (cont.)

25

Find the arithmetic means of

5, ___, ___, ___, ___, ___, 53

26

Two sides of a triangle measure 14 ft and 17 ft, respectively. The included angle is 72°. ***Approximately*** how long is the third side of the triangle?

A 18.4 ft

B 20.3 ft

C 25.1 ft

D 30.7 ft

EASY

27

Which of the following is/are true for the given set of data:

5.4, 6.8, 3.6, 5.4, 2.5, 6.8, 5.2

I. median is 5.2

II. mode is 6.1

III. mean is 5.1

a) I only b) III only

c) II and III only d) I, II, and III

28

Emily has 5 blouses and 3 pair of slacks. Find the number of possible outfits consisting of one blouse and one pair of slacks.

a) 4 b) 8 c) 15 d) $\frac{3}{5}$

29

The following list shows the number of people (in millions) in the United States whose only means of getting to work was walking.

Year (x)	Number (y)
1940	7.6
1950	7.0
1960	6.4
1970	5.7
1980	5.4
1990	4.5

If $x = 0$ for the year 1940, which equation is the best-fit linear model for the data?

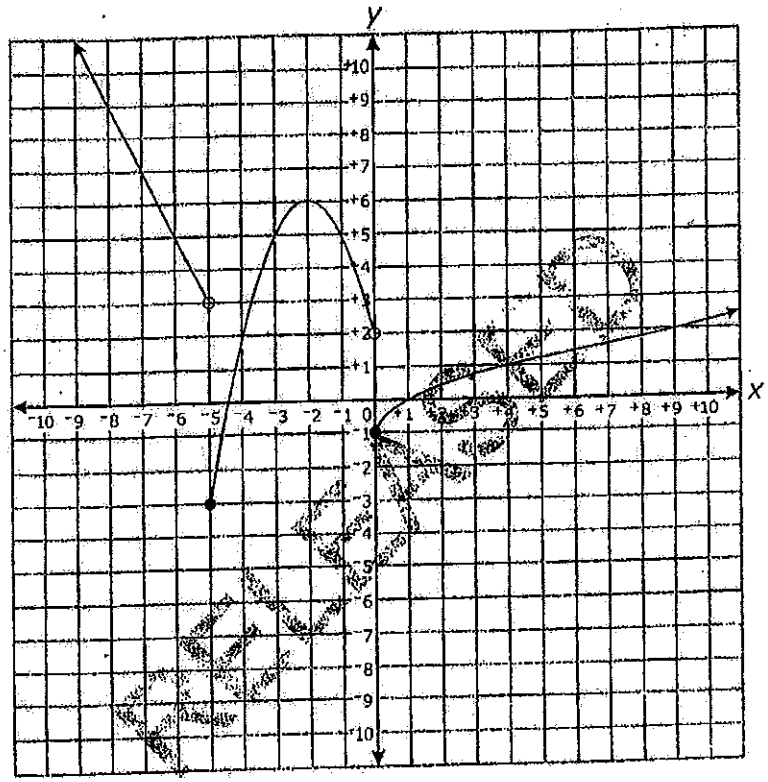
A $y = -16.5x + 125$

B $y = -0.06x + 7.6$

C $y = 0.06x + 10$

D $y = 7.6x - 0.06$

30 Which piecewise function is graphed below?



A $f(x) = \begin{cases} -2x - 7 & \text{for } x < -5 \\ -(x + 2)^2 + 6 & \text{for } -5 \le x < 0 \\ \sqrt{x - 1} & \text{for } x \ge 0 \end{cases}$

B $f(x) = \begin{cases} -2x - 7 & \text{for } x < -5 \\ -(x - 2)^2 + 6 & \text{for } -5 \le x < 0 \\ \sqrt{x - 1} & \text{for } x \ge 0 \end{cases}$

C $f(x) = \begin{cases} -2x - 7 & \text{for } x \le -5 \\ -(x - 2)^2 + 6 & \text{for } -5 < x \le 0 \\ \sqrt{x - 1} & \text{for } x > 0 \end{cases}$

D $f(x) = \begin{cases} -2x - 7 & \text{for } x \le -5 \\ -(x + 2)^2 + 6 & \text{for } -5 \le x \le 0 \\ \sqrt{x - 1} & \text{for } x > 0 \end{cases}$

31 **What is the middle term for the expansion of $(x^2 + 3)^{12}$?**

A $729x^{12}$
B $924x^{12}$
C $673{,}596x^{12}$
D $665{,}280x^{12}$

32 **CAR SALES** The mean stay of a car on a lot before being sold is 21 days, with a standard deviation of 3 days. The lengths of stay are normally distributed. What percent of the cars are sold after having been on the lot between 18 and 24 days?

A. 95% **B.** 34% **C.** 68% **D.** 5%

33 Find $\sum_{n=1}^{4} 3 \cdot 2^{n-1}$.

A. 80 **B.** −80

C. 45 **D.** −45

34 FIND the LARGEST angle.