

Warm-Up

Wednesday, May 24

1. Write the equation of a line given a slope of -2 that goes through (-1, 3) in slope-intercept form.

$$y = mx + b$$

$$3 = -2(-1) + b$$

$$3 = 2 + b$$

$$\frac{-2}{-2} = \frac{-2}{-2}$$

$$1 = b$$

$$y = -2x + 1$$

2. Evaluate (without a calculator) 2^{-4} .

A) 16

B) ~~$\frac{1}{16}$~~ C) $\frac{1}{16}$ D) ~~$\frac{1}{4}$~~

$$\frac{1}{2^4} = \frac{1}{\underbrace{2 \cdot 2 \cdot 2 \cdot 2}_{4 \cdot 4}} = \frac{1}{16}$$

Test Tutorial using released test

Whiteboards

Practice EOG

CALCULATOR INACTIVE #1-17

1. In which table is y a function of x?

A.

x	y
-3	6
2	5
3	2
2	3

B.

x	y
-1	0
5	2
7	3
5	4

C.

x	y
2	-1
3	0
4	-5
5	7

D.

x	y
0	6
-1	3
2	4
-1	5



2. A square has an area of 29 square units. Which choice below is the best estimate for the side of the square?

- A. more than 5 but less than 6 units
- B. more than 7 but less than 8 units

- C. more than 14 but less than 15 units
- D. more than $\sqrt{25}$ but less than $\sqrt{36}$ units



93,000,000_x

3. Earth is approximately 93 million miles away from the sun. How could this distance be written in scientific notation?

~~A. 9.3×10^{-7}~~

~~B. 9.3×10^{-6}~~

C. 9.3×10^6

D. 9.3×10^7

93,000,000



4. The diameter of Jupiter is approximately 9×10^4 miles. The diameter of Earth is approximately 8×10^3 miles. Approximately how many times the diameter of Earth is the diameter of Jupiter?

~~A. 110~~

B. 11

C. 0.9

D. 0.09

$$\frac{9 \times 10^4}{8 \times 10^3} = 1.12 \times 10^1$$

$$8 \overline{) 9.00} = 1.125$$

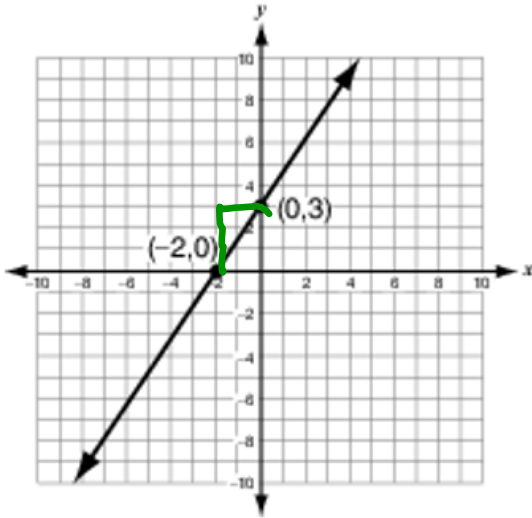
Diameter

$$\begin{array}{r} 90000 \\ \underline{80000} \\ 10000 \\ \underline{8000} \\ 2000 \\ \underline{1600} \\ 400 \\ \underline{400} \\ 0 \end{array}$$

$$1.12 \times 10^1 = 11.2$$



5. What is the equation of the line shown?



A. $y = -\frac{3}{2}x + 3$

B. $y = -2x + 3$

C. $y = \frac{3}{2}x + 3$ ✓

D. $y = 3x - 2$

0:00:54

6. Which equation represents a linear function?

A. $3x + 2y = 6$

B. $y = x^2 - 3$

C. $y = \frac{2}{x} + 7$

D. $y = \frac{5}{x}$

0:01:00

7. Which table contains pairs of values for nonlinear functions?

Table A

x	y
1	2
2	2
3	2
4	2

Table B

x	y
1	0
2	3
3	6
4	9

Table C

x	y
1	4
2	8
3	12
4	16

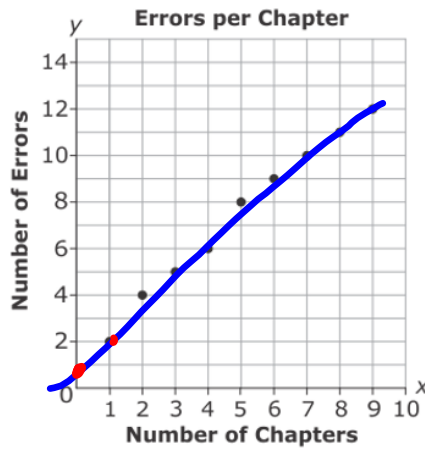
Table D

x	y
1	1
2	4
3	9
4	16

0
0
0

3
5

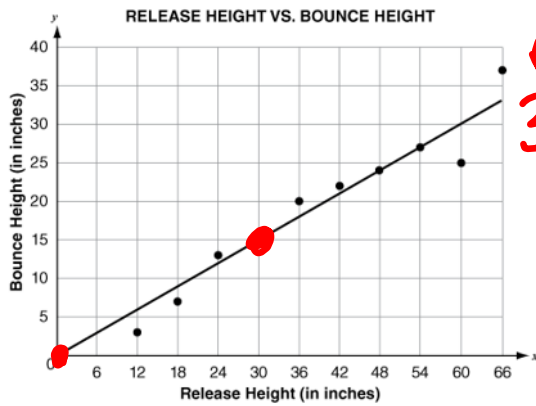
8. The graph below shows the number of errors found in a book.



Which equation would best fit the data?

- A. $y = x + 1$
- B. $y = x - 1$
- C. $y = -x + 1$
- D. $y = -x - 1$

9. The graph below shows the relation between the height from which a ball is released and the maximum height it reaches on its first bounce.



*release
bounce
30, 15*



What can be concluded from the line of best fit?

- A. The bounce height is 0.5 inch less than the release height.
- B. The bounce height is 2 inches less than the release height.
- C. The bounce height is 0.5 times the release height.
- D. The bounce height is 2 times the release height.

$\frac{-2+7}{0+1} = \frac{5}{1}$

12. Which is the equation of the line that passes through the points (0, -2) and (-1, -7)?


A. $y = -9x - 2$ B. $y = -5x - 2$ C. $y = 5x - 2$ D. $y = 9x - 2$

$-7 = -9(-1) - 2$
 $-7 = 9 - 2$
 $-7 = 7$

$-5(-1) = ?$
 $5 \cdot 2 = 10$

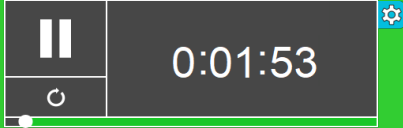
$(0, -2)$
 $(-1, -7)$

$\frac{-5}{-1} = 5$



13. Find the sum of the whole numbers between $\sqrt{22}$ and $\sqrt{55}$.

$\sqrt{25}$ $\sqrt{36}$ $\sqrt{49}$ $\sqrt{64}$
 $5 + 6 + 7 + 8$
 $11 + 7$
 18



17. Which equation corresponds to the values in the table below?

A. ~~$y = -3x$~~

B. $y = -3x - 2$

C. $y = -2x - 2$

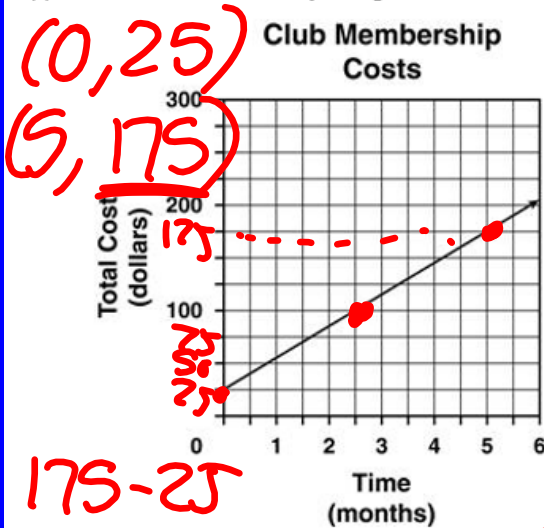
D. $y = 1/3x - 2$

X	Y
0	-2
1	-5
2	-8
3	-11

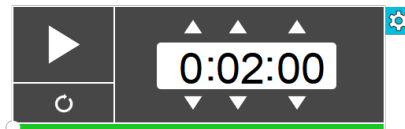


CALCULATOR ACTIVE

18. The graph models the total cost of a health club membership over 6 months. The cost includes a one-time application fee and a monthly charge. Based on the graph, which choice best describes the data?

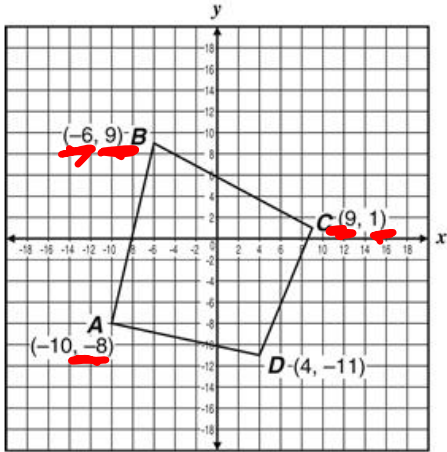


- ~~A. The application fee is \$30, and the monthly charge is \$25.~~
- B. The application fee is \$25, and the monthly charge is \$30.**
- C. The application fee is \$25, and the monthly fee is \$35.
- ~~D. The application fee is \$30, and the monthly fee is \$25.~~



$$\frac{175 - 25}{5 - 0} = \frac{150}{5} = 30$$

19. Quadrilateral ABCD is graphed below. Which line segment has a length of exactly 17 units?



Handwritten calculations in red ink:
 $9 + 6$
 $15^2 + 8^2$
 225
 64
 $\sqrt{289}$
 17

- A. AB
- B. BC
- C. CD
- D. DA

Handwritten calculations in green ink:
 $\sqrt{289}$
 17
 17
 119
 170
 289

