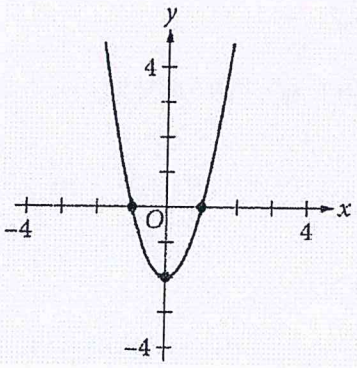
Bellwork Alg 2 Thursday, December 20, 2018

1.



Which of the following equations could be represented by the graph above?

I. $y = 2x^2 - 2$

II. $y = 2(x-1)^2$

III. $y = 2(x-1)(x+1)$

A) *I* only
B) *III* only
C) *I* and *III* only
D) *I*, *II*, and *III*

2.

	Asked for repairs	Did not ask for repairs	Total
Asked about a bill	48	623	671
Did not ask about a bill	130	90	220
Total	178	713	891

Employees working for a customer service line at an electric company recorded all the calls last Monday and noted whether the caller asked for repairs and whether the callers asked about a bill. The results are summarized the in the table above. If a caller last Monday who asked about his or her bill is selected at random, which of the following is closest to to the probability that the customer also asked for repairs?

A) 0.05 B) 0.07 C) 0.20 D) 0.27

3. The equation $\frac{x^2+6x-7}{x+7} = ax + d$ is true for all $x \neq 7$, where a and d are integers. What is the value of $a + d$?

A) -6 B) -1 C) 0 D) 1

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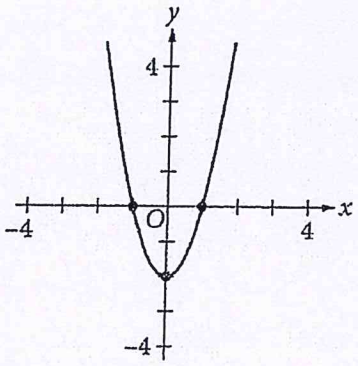
ANSWERS

1.



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(-1,0), (0,-2), (1,0) are 3 points on the parabola. All 3 points make I true. III is the factored form of I. II is a parabola shifted one unit right, so it's not the answer.

C

2.

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$$\frac{\text{asked about bill AND repairs}}{\text{asked about bill}}$$

$$= \frac{48}{671} = 0.0715$$

B

3. The equation $\frac{x^2+6x-7}{x+7} = ax + d$ is true for all $x \neq 7$, where a and d are integers. What is the value of $a+d$?

A) −6 B) −1 C) 0 D) 1

ONE WAY TO ANSWER THIS:

$$x+7 \overline{)\, x^2+6x-7}$$

x − 1

$-(x^2+7x)$

$-x-7$

$-(-x-7)$

0

C

$ax + d = x - 1$

$a = 1$

$d = -1$

$a+d = 1+-1 = 0$