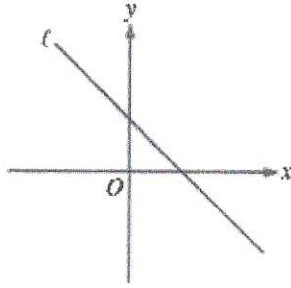


Praxis Review – Form 1

#16

Click on your choices.

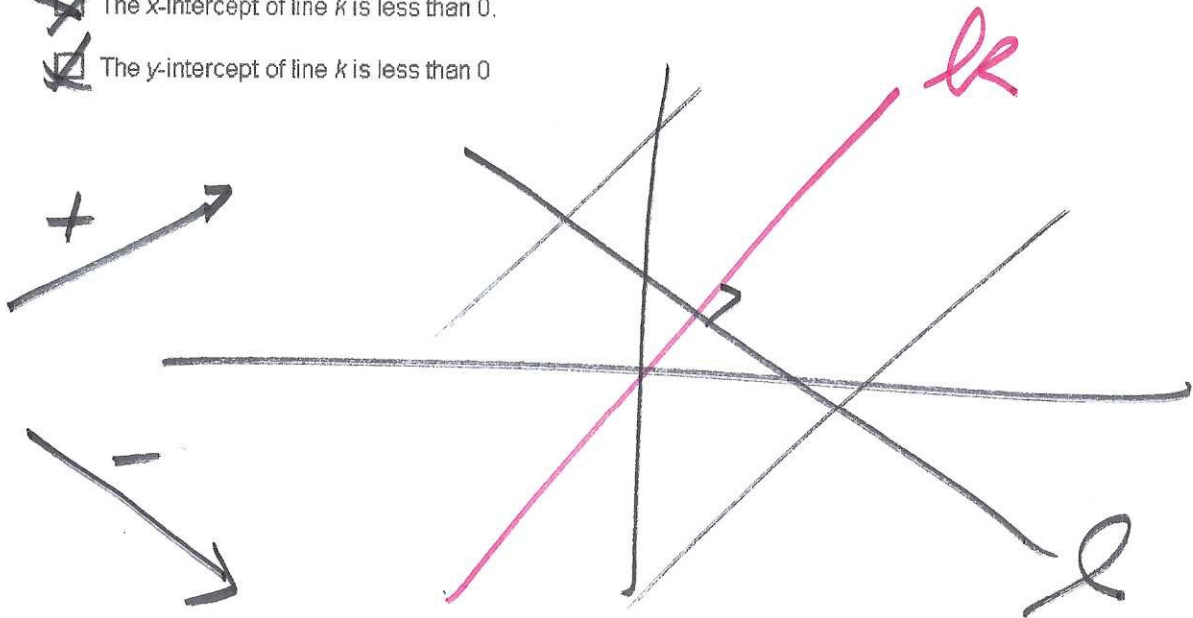


The figure shows line l in the xy -plane. Line k (not shown) is perpendicular to line l . Which of the following statements could be true?

Indicate all such statements.

- The slope of line k is less than 0. ~~X~~
- The x-intercept of line k is less than 0.
- The y-intercept of line k is less than 0.

B, C



Praxis Review – Form 1

#17

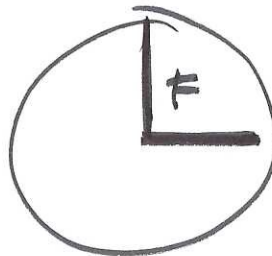
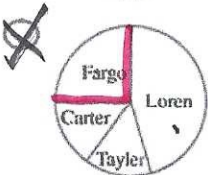
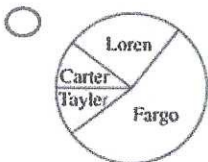
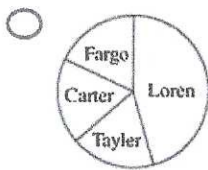
Time Remaining: 1:27:00

Answer the question by clicking on the correct response.

| TOTAL AREA OF JOHNSTON COUNTY, BY TOWNSHIP | | |
|--|--------------------------|------------------|
| Township | Land Area (square miles) | Percent of Total |
| Fargo | 46.6 | 25% |
| Loren | 83.9 | 45% |
| Carter | 28.1 | 15% |
| Taylor | 27.9 | 15% |
| Total | 186.5 | 100% |

x

Which of the following circle graphs best represents the distribution of land area in Johnston County as shown in the table above?



Fargo is 25% - only possible answers C & D
Loren - little less than $\frac{1}{2}$
must be C

Praxis Review – Form 1

#18

Click on your choices.

Which of the following statements describe the graph of the function $3x - 4y = 12$ in the xy -coordinate plane?

Select all that apply.

- The slope of the line is $-\frac{4}{3}$.
- The slope of the line is $\frac{3}{4}$.
- The x-intercept is 3.
- The x-intercept is 4.
- The y-intercept is -4 .
- The y-intercept is -3 .

cover-up

$$3x - 4y = 12$$

$$Ax + By = C$$

$$x = 4$$

$$y = -3$$

To find the intercepts
cover-up

$$m = -\frac{A}{B}$$

$$= -\frac{3}{-4} = \frac{3}{4}$$

✓

Praxis Review – Form 1

#19

Answer the question by clicking on the correct response.

Set A consists of all integers that are prime numbers. Set B consists of all 2-digit positive integers that are less than 70 and have a units digit of 7. How many integers are members of both set A and set B?

- 3
- 4
- 5
- 6

$$A = \{ 2, 3, 5, 7, 11, 13, \underline{17}, 19, 23, 29, 31, \underline{37}, 41, 43, \underline{47}, 53, 59, 61, \underline{67} \}$$

~~57~~ → 12

$$B = \{ \}$$

ENDS IN

- Div by 2, ends in even #
- Div by 5, ends in 0 or 5
- Div by 10, ends in 0

Rules of Div

Sum

- Div by 3, sum of digits is ÷ 3
- Div by 9, sum of digits is ÷ 9

last digits Div by 4, last 2 digits ÷ 4

924

6111 = 9

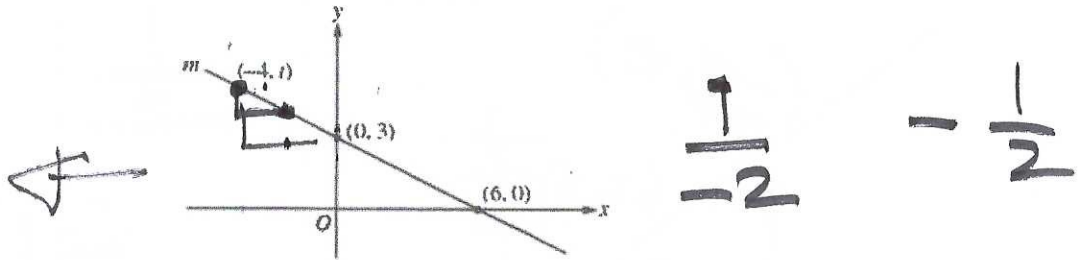
207 = $\frac{9}{9}$

123 $\frac{6}{3} = 2$ 111 = $\frac{3}{3} = 1$

Praxis Review – Form 1

#20

Answer the question by clicking on the correct response.



The point with coordinates $(-4, t)$ lies on line m in the xy -plane, as shown above. What is the value of t ?

- 4
- 5
- 9
- 14

Handwritten work showing a slope calculation:

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 0}{0 - 6} = \frac{3}{-6} = -\frac{1}{2}$$

Another handwritten slope calculation:

$$m = \frac{3}{4}$$

A box labeled "Slope" is drawn. A separate graph shows a line passing through points $(2, 1)$ and $(6, 4)$ with a slope triangle indicating a slope of $\frac{3}{4}$.

Go over -2, up 1, then go over -2 and up 1 again

Praxis Review – Form 1

#21

Click on the answer box and type in a number. Backspace to erase.

The sum of three consecutive integers is 19 less than four times the smallest integer. What is the value of the middle integer?

~~22~~

1

| | | | |
|----|---|-----|----|
| #1 | - | x | 22 |
| #2 | . | x+1 | 23 |
| #3 | | x+2 | 24 |

$$x + (x+1) + (x+2) = 4x - 19$$

$$3x + 3 = 4x - 19$$

$$22 = x$$

Slope ✓

Praxis Review – Form 1

#22

Answer the question by clicking on the correct response.

| Scores | Number of Students |
|--------|--------------------|
| 100 | 1 |
| 90–99 | 4 |
| 80–89 | 7 |
| 70–79 | 6 |
| 60–69 | 5 |

The table shows the French midterm test scores of 23 students. Based on the information given, which of the following values can be determined?

- The lowest score
- The highest score
- The mean score
- The median score

Praxis Review – Form 1

#23

Answer the question by clicking on the correct response.

Which of the following is an equation of a line that is perpendicular to the line $y = 2x + 13$?

$y = -2x + 6$

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

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

$y = 2x + 6$

$$y = 2x + 13$$

|| Lines same slope
⊥ Lines neg rec slope

$$y = \underline{m}x + b$$

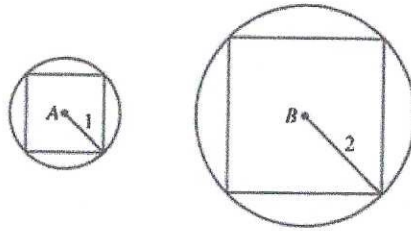
$$m = 2$$

$$m_{\perp} = -\frac{1}{2}$$

Praxis Review – Form 1

#24

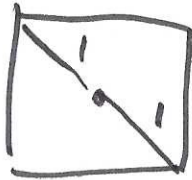
Answer the question by clicking on the correct response.



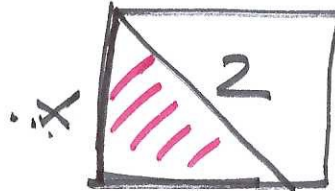
A square is inscribed in each of the circles above. The radius of circle A is 1, and the radius of circle B is 2. What is the ratio of the area of the square inscribed in circle A to the area of the square inscribed in circle B?

- 1: $\sqrt{2}$
- 1: 2
- 1: $2\sqrt{2}$
- 1: 4

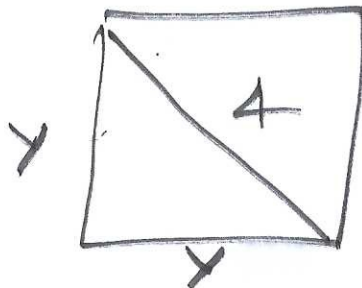
$$\frac{A}{B} = \frac{2}{8} = \frac{1}{4}$$



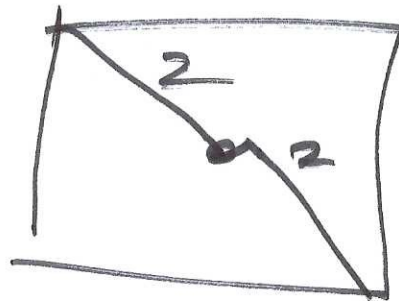
$$\begin{aligned} A_{sq} &= \sqrt{2} \sqrt{2} \\ &= \sqrt{4} \\ &= 2 \end{aligned}$$



$$\begin{aligned} x^2 + x^2 &= 2^2 \\ 2x^2 &= 4 \\ \boxed{x^2 = 2} & \quad A. \\ x &= \sqrt{2} \end{aligned}$$



$$\begin{aligned} y^2 + y^2 &= 4^2 \\ 2y^2 &= 16 \\ \boxed{y^2 = 8} \end{aligned}$$



~~A B B~~

Praxis Review – Form 1

#25

Click on your choices.

| | | |
|----------|-----|-----|
| \oplus | a | b |
| a | a | b |
| b | b | a |

The table above defines an operation \oplus on the set $S = \{a, b\}$. Which of the following is true about S under the operation \oplus ?

Select all that apply.

- S is commutative.
- S is closed.
- There is an element of S that does not have an inverse.
- S contains an identity.

closed

| | | |
|-----|-----|-----|
| $+$ | 4 | 5 |
| 2 | 6 | 7 |
| 3 | 7 | 8 |

| | | |
|----------|-----|-----|
| \oplus | a | b |
| a | a | b |
| b | b | a |

$$a \oplus b = b \oplus a$$

$$b = b$$

$$8 + 0 = 8$$

$$8 \cdot 1 = 8$$

Praxis Review – Form 1

#26

Answer the question by clicking on the correct response.

| Stem | Leaf |
|------|------------------|
| 12 | 0, 2 |
| 13 | 1, 3, 3 |
| 14 | 2, 4, 5, 8 |
| 15 | 0, 1, 4, 7, 7, 9 |
| 16 | 2, 8, 8 |
| 17 | 1, 6, 9 |
| 18 | 0, 0, 4 |
| 19 | 5 |

*12 less than
155 lbs*

Key: 13|1 = 131 pounds

The weights, in pounds, of the 25 members of a fitness club are shown in the stem-and-leaf plot. What percent of the club members weigh less than 155 pounds?

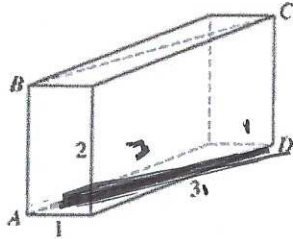
- 36%
- 48%
- 52%
- 64%

$$\frac{12}{25} = \frac{48}{100}$$

Praxis Review – Form 1

#27

Answer the question by clicking on the correct response.



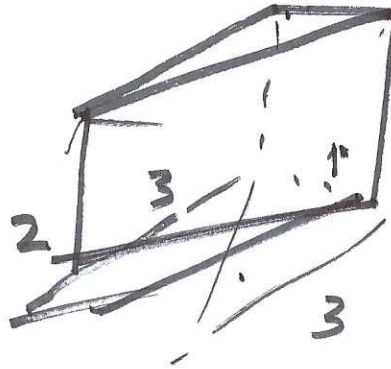
$$1^2 + 3^2 = d^2$$

$$1 + 9 = d^2$$

A rectangular solid with dimensions 1, 2, and 3 is shown above. What is the area of the cross section ABCD?

- $2\sqrt{10}$
- $2\sqrt{13}$
- $3\sqrt{5}$
- 8

Pyth -



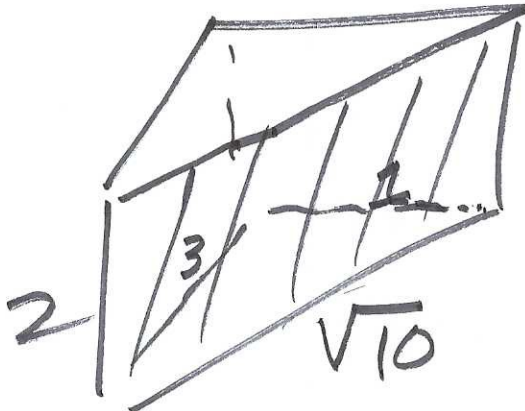
$$10 = d$$

$$\sqrt{10} = d$$

$$A =$$

$$lw$$

$$\sqrt{10} \cdot 2$$



$$2\sqrt{10}$$

VW

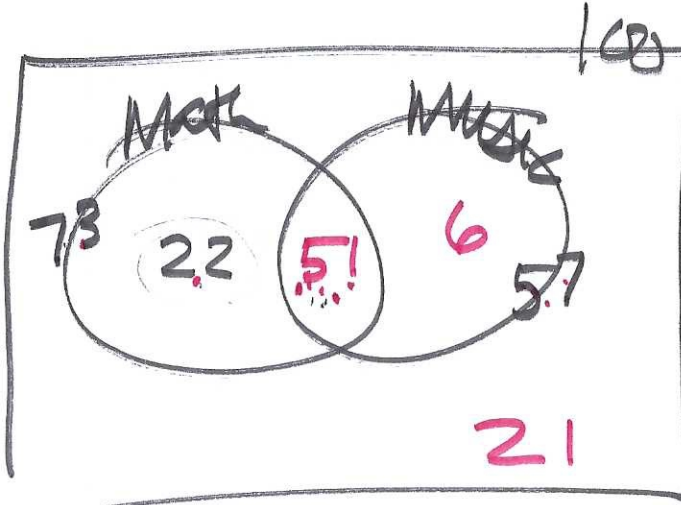
Praxis Review – Form 1

#28

Answer the question by clicking on the correct response.

According to a survey of 100 students, 73 students took a math course and 57 took a music course. Of those surveyed, 22 reportedly took a math course but not a music course. How many students took neither a music course nor a math course?

- 6
- 21
- 30
- 51

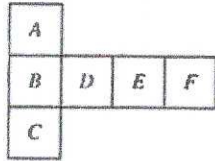


$$22 + 51 + 6 = 79$$

Praxis Review – Form 1

#29

Answer the question by clicking on the correct response.



The T-shaped figure above consists of six congruent squares. A coin will be placed randomly on one of the squares. It will then be moved randomly to a square that is adjacent to the square on which it was originally placed. What is the probability that after the coin has been moved, it will be on square E? (Two squares are adjacent if they share a common side.)

- $\frac{1}{3}$
- $\frac{1}{4}$
- $\frac{1}{6}$
- $\frac{1}{12}$



AB BA
BC CB
BD DB

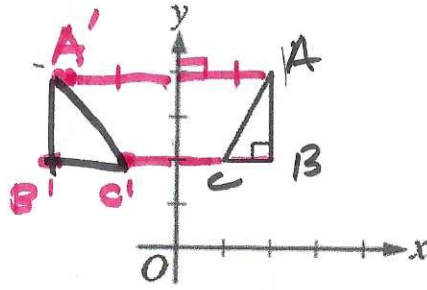
$$\frac{2}{8} = \frac{1}{4}$$

DE
FE

Praxis Review – Form 1

#30

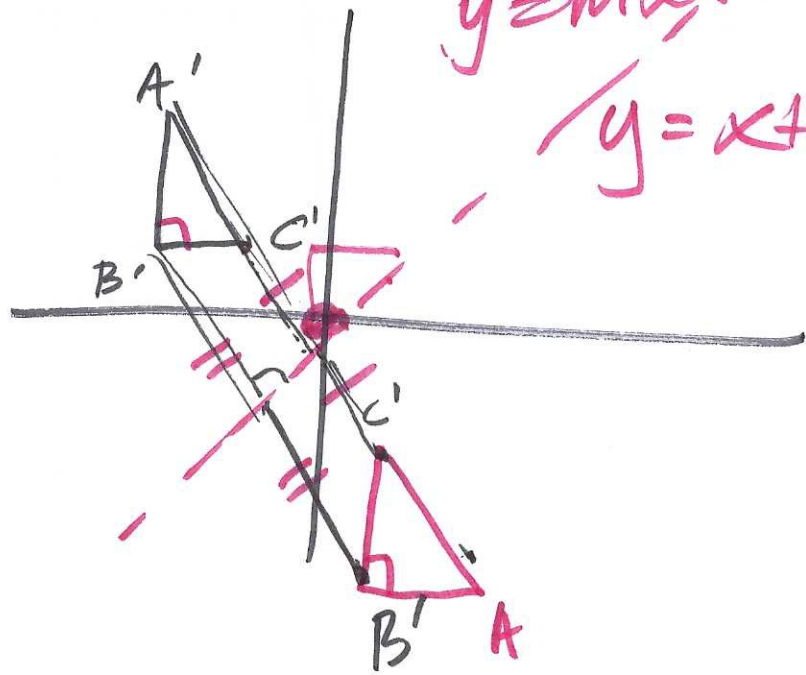
Answer the question by clicking on the correct response.



\perp bisector

The triangle shown in the xy -plane is to be reflected about the y -axis and then reflected about the line $y = x$. Which of the following would be the result of the reflections?

-
-
-
-



$y = mx + b$
 $y = x + c$

$y = x$

| | |
|-----|-----|
| x | y |
| 0 | 0 |
| 1 | 1 |
| 2 | 2 |