Praxis Review - Form 3

#1

Answer the question below by clicking on the correct response.

Abby hiked 2,500 meters along a trail at a nearby park each day for the last 5 days. How many kilometers did Abby hike in the last 5 days? (Note: 1,000 meters = 1 kilometer)

- ○ 12,500,000
- ○ 125,000
- ○ 125
- ⊗ 12.5

$2500\ m \times 5 = 12,500$

$1\ Km = 1000\ m$

$$\frac{12,500}{1000}$$

$= 12,5$

Praxis Review - Form 3

#2

Answer the question below by clicking on the correct response.

Justin claims that "All numbers that are divisible by 3 and 9 are also divisible by 27." Which of the following numbers can be used to prove that Justin's claim is incorrect?

- ○ 54
- ○ 81
- ✗ 117
- ○ 243

Do the division

$$27\overline{)117}\quad 4,\ 108$$

Praxis Review - Form 3

#3

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

The sum of 3 consecutive even integers is 204. What is the greatest of the 3 integers?

#1 x

#2 $x+2$

#3 $x+4$

$$x + x+2 + x+4 = 204$$

$$3x + 6 = 204$$

$$3x = 198$$

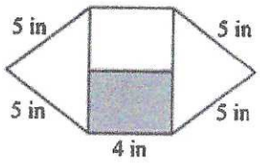
$$x = 66$$

largest $x+4 = 70$

Praxis Review - Form 3

#4

Answer the question below by clicking on the correct response.



The figure shows a hexagon consisting of two triangles and two rectangles. If the perimeter of the shaded rectangle is 14 inches, what is the area, in square inches, of the entire hexagon?

- ○ 36
- ○ 48
- ○ 54
- ○ 72

5 Parts

P1. Find length of shaded side

$4x + y$ $\quad 4 + x + 4 + x = 14$

$2x + 8 = 14$

$2x = 6$

$x = 3$

P2 Find height of $\triangle$

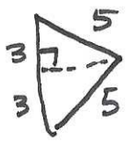
$c^2 = a^2 + b^2$

$5^2 = 3^2 + b^2$

$25 = 9 + b^2$

$16 = b^2$

$4 = b$, so $h = 4$



P3. Find Area of $\square$

$A = lw$

$= 6 \cdot 4 = 24$

P4. Find Area of $\triangle$

$A = \frac{1}{2}bh$

$= \frac{1}{2} 6 \cdot 4 = 12$

There are 2 $\triangle$'s; 24

P5 Add Areas

$24 + 24 = 48$

Praxis Review - Form 3

#5

Click on your choices.

For each of the given linear equations, indicate whether the equation is in standard form, slope-intercept form, point-slope form, or other.

Equation	Standard form	Slope-intercept form	Point-slope form	Other
$y-6=2x$	○	○	○	✓
$3x-5=y$	○	✓	○	○
$y+2=\frac{1}{2}(x-3)$	○	○	✓	○
$2x+3y=9$	✓	○	○	○

Praxis Review - Form 3

#6

Answer the question below by clicking on the correct response.

Brand	Size	Cost
Rainbow Room	20 oz.	$5.00
Bright Shades	30 oz.	$9.00
Lehrer	40 oz.	$16.00
Fun Color	45 oz.	$15.00

The table shows the sizes and costs of four different brands of paint. Which brand of paint offers the lowest cost per ounce?

- Rainbow Room
- Bright Shades
- Lehrer
- Fun Color

Unit price : $\frac{\text{price}}{\text{oz}}$

Rainbow $\frac{5}{20} = .25$

Bright $\frac{9}{30} = .30$

Lehrer $\frac{16}{40} = .40$

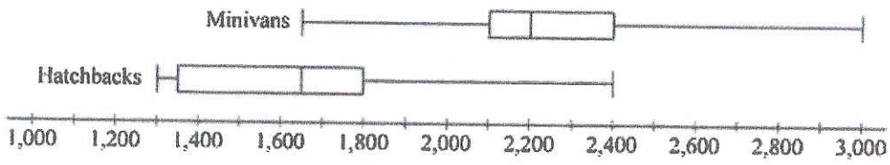
Fun $\frac{15}{45} = .33$

Rainbow cheapest

Praxis Review - Form 3

#7

Answer the question below by clicking on the correct response.



The boxplots shown summarize the prices, in dollars, of 20 low-mileage used minivans and the prices, in dollars, of 20 low-mileage hatchbacks as listed on an auto dealer's Web site. Which of the following statements is the best comparison of the minimum price of the minivans to the prices of the hatchbacks?

- ○ The minimum price of the minivans is greater than the prices of approximately 25% of the hatchbacks.
- ⊗ The minimum price of the minivans is greater than the prices of approximately 50% of the hatchbacks.
- ○ The minimum price of the minivans is greater than the prices of approximately 75% of the hatchbacks.
- ○ The minimum price of the minivans is greater than the prices of approximately 100% of the hatchbacks.

Praxis Review - Form 3

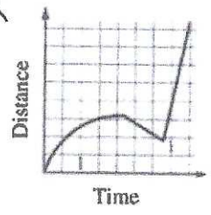
#8

Click on your choices.

Which of the following graphs could represent the distance of an object from a given point as time passes?

Select **all** that apply.

☒



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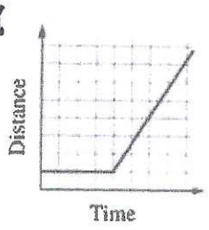

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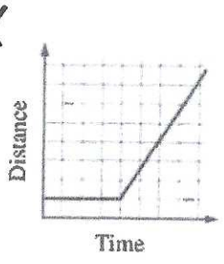

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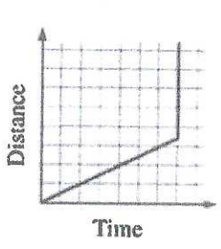


Praxis Review - Form 3

#9

Answer the question below by clicking on the correct response.

Joan wants to cover her kitchen floor with tiles. The floor is in the shape of a rectangle with width 9 feet and length 12.5 feet, and each tile is in the shape of a square with side length 1 foot. The tiles are sold only by the box, and each box holds 10 tiles. The tiles will be placed such that there will be no overlapping of and no space between the tiles, and the tiles can be cut if necessary. If the entire kitchen floor is to be covered with tiles, what is the minimum number of boxes of tiles that Joan will need to buy?

- ○ 9
- ○ 10
- ○ 11
- ⊗ 12

$A = \ell w$

$= 12.5 \cdot 9$

$= 112.5$

1 Box = 10 sq'

$10 \overline{)112.5}$ → 11.25

11 full boxes + 1 more

12

Praxis Review - Form 3

#10

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

$$(3x+6)\left(2x^2-cx+5\right)$$

For what value of c is the expression shown equivalent to $6x^3-9x+30$?

$c =$ |

$(3x+6)(2x^2-cx+5)$

$= 6x^3 - 3cx^2 + 15x + 12x^2 - 6cx + 3$

* There is NO x^2 term

$\therefore \Rightarrow -3cx^2 + 12x^2 = 0$

$= -3x^2(c-4) = 0$

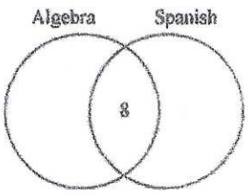
$c = 4$

√D

Praxis Review - Form 3

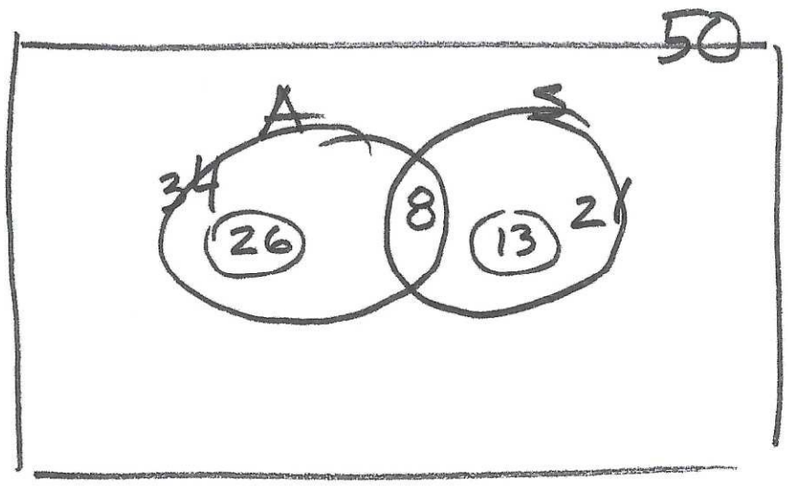
#11

Answer the question below by clicking on the correct response.



The incomplete Venn diagram shows the results of a survey of 50 students. If 34 of the students are enrolled in algebra, 21 are enrolled in Spanish, and 8 are enrolled in both classes, how many of the students are enrolled in neither algebra nor Spanish?

- 2
- ~~3~~
- 4
- 5



Just Alg $34 - 8 = 26$

Just Sp $21 - 8 = 13$

In classes $26 + 13 + 8 = 47$

Not in any $50 - 47 = 3$

Praxis Review - Form 3

#12

Answer the question below by clicking on the correct response.

Which of the following is an equation of the line in the *xy*-plane that passes through the points $(-2, -2)$ and $(7, 11)$?

- ○ $5x - 9y - 8 = 0$
- ○ $9x - 5y + 8 = 0$
- ○ $9x - 13y - 8 = 0$
- ⊗ $13x - 9y + 8 = 0$

$$m = \frac{\Delta y}{\Delta x}, \quad \frac{-2-11}{-2-7} = \frac{-13}{-9}$$

$$= \frac{13}{9}$$

$$y - y_1 = m(x - x_1)$$

$$y - (-2) = \frac{13}{9}(x - (-2))$$

$$y + 2 = \frac{13}{9}(x + 2)$$

$$9y + 18 = 13x + 26$$

$$0 = 13x - 9y + 8$$

Praxis Review - Form 3

#13

Click on your choices.

- Line *a*: $y = \frac{2}{5}x + 1$
- Line *b*: $y = \frac{5}{2}x + 4$
- Line *c*: $y = -\frac{2}{5}x - 2$
- Line *d*: $y = \frac{5}{2}x + 5$

Indicate whether each of the following statements about lines *a*, *b*, *c*, and *d* is true or false.

Statement	True	False
Line *a* ⊥ line *c*	○	✗
Line *b* ∥ line *d*	✗	○
Line *b* ⊥ line *c*	✗	○
Line *a* ⊥ line *b*	○	✗

∥ lines, m's equal
⊥ lines; neg recip m's

Praxis Review - Form 3

#14

Answer the question below by clicking on the correct response.

The function f is defined by $f(x) = -2x + 8$. If the interval $[-2, 6]$ represents the domain of f, which of the following intervals represents the range of f?

- ○ $[-12, -4]$
- ○ $[-4, 4]$
- ✗ $[-4, 12]$
- ○ $[12, 20]$

$$f(x) = -2x + 8$$

$$f(-2) = -2(-2) + 8$$
$$= +4 + 8$$
$$= 12$$

$$f(6) = -2(6) + 8$$
$$= -12 + 8$$
$$= -4$$

Range $[-4, 12]$