Praxis Review – Form 1

Answer the question by clicking on the correct response.

If $bd \neq 0$, then $\dfrac{a}{b} + \dfrac{c}{d} =$

○ $\dfrac{ac}{bd}$

○ $\dfrac{a+c}{b+d}$

○ $\dfrac{a+c}{bd}$

⊗ $\dfrac{ad+bc}{bd}$

$$\frac{a}{b} \times \frac{c}{d} = \frac{ad+bc}{bd}$$

$$\frac{a}{b} + \frac{c}{d} = \frac{ad+bc}{bd}$$

Praxis Review – Form 1

#2

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

0	4 5 9
1	2 2 2 7
2	1 3 3 4
3	0 1 1 1

Key: 1|2 = 12

What is the median of the data shown in the stem-and-leaf plot above?

[ ]

15 scores

8th score
is median

Stem + Leaf   21

Praxis Review – Form 1

#3

Answer the question by clicking on the correct response.

A 224-mile trip requires 6 gallons of gasoline. At this rate, how many gallons of gasoline would be required for a 168-mile trip?

- ○ 4
- ⊗ 4.5
- ○ 8
- ○ 8.5

$$\frac{mi}{gal} ; \quad \frac{224}{6} = \frac{168}{x}$$

$$224x = 6 \cdot 168$$

$$224x = 1008$$

$$x = 4.5 \ gal$$

Praxis Review – Form 1

Click on your choices.

When Khalid solved a word problem, he correctly gave 84. 8 as the answer. Which of the following could have been the question asked in the problem?

Select all that apply.

☐ What was the number of students on the class trip? ✗

☑ What was the average temperature in this city during the month of July? ✓

☑ What is the product of the following two rational numbers? ✓

Praxis Review – Form 1

#5

Answer the question by clicking on the correct response.

$5^x + 15^x =$

                                            Factor $15 = 3 \cdot 5$

⊗ $5^x \left(1 + 3^x\right)$

◯ $5\left(4^x\right)$

◯ 20^x

◯ 75^{2x}

$$5^x + 15^x$$

$$5^x + (3 \cdot 5)^x$$

$$5^x + 3^x \cdot 5^x$$

$$5^x \left(1 + 3^x\right)$$
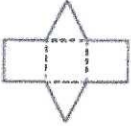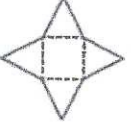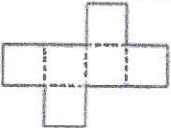
$$\frac{5^x}{5^x} + \frac{3^x \, 5^x}{5^x}$$

$$5^x \left(1 + 3^x\right)$$

Praxis Review – Form 1

Click on your choices.

For each of the following nets, indicate whether the solid that can be formed by the net is a triangular prism, a rectangular prism, a triangular pyramid, or a rectangular pyramid.

Net	Triangular Prism	Rectangular Prism	Triangular Pyramid	Rectangular Pyramid
	○	○	⊗	○
	⊗	○	⊘	○
	○	○	○	⊗
	○	⊗	○	○

Prism - same & bottom
Pyramid - meets in a pt

#7

Answer the question by clicking on the correct response.

If *a* and *b* are integers, then all of the following must be true EXCEPT

○ $|a| = |-a|$ ✓

○ $|ab| = |a||b|$ ✓
  $8 \cdot 5 \quad 8 |5|$

$\sqrt{50} = \sqrt{25 \cdot 2}$

○ $|ab| = \sqrt{a^2 b^2}$ ✓

$\cancel{\bigcirc}$ $|a + b| = |a| + |b|$
  $|9 + 16| \quad 9 + 16$
  $\cdot 25 \quad 25$
  $|9 - 16| \quad (|9| + |-16|)$
  $\boxed{\cdot 7} \neq \boxed{25}$

Doesn't work when negative #'s used

Praxis Review – Form 1

Answer the question by clicking on the correct response.

| 1 cup = 16 tablespoons |
| 1 tablespoon = 3 teaspoons |

←

A certain recipe calls for $\frac{1}{4}$ cup of white <u>sugar</u>. $\frac{1}{2}$ cup of brown sugar, $2\frac{1}{4}$ cups of flour, $\frac{1}{4}$ teaspoon of salt, and 2 tablespoons of cornstarch. The amount of cornstarch called for is approximately what fraction of the total amount of sugar called for?

- ○ $\frac{1}{24}$
- ○ $\frac{1}{12}$
- ○ $\frac{1}{8}$
- ✗ $\frac{1}{6}$

$$\frac{C.S.}{sugar} = \frac{3}{4}$$

$$sugar \quad \frac{3}{4}$$

$$\frac{1}{4} + \frac{1}{2} = \frac{6}{8}$$

$$\frac{3}{4}$$

$$\frac{3}{4} \; cup \times \frac{16 \; tab}{1 \; cup} = \frac{48}{4} = 12 \; table$$

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

$$+ \quad \frac{1}{2} = \frac{2}{4}$$

$$\frac{3}{4}$$

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

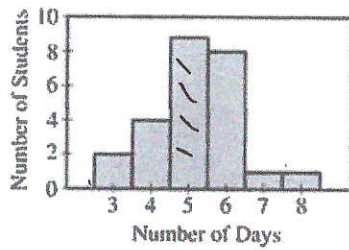$$\frac{C.S.}{sugar} \; \underline{\quad\quad}$$

Praxis Review – Form 1

Answer the question by clicking on the correct response.

NUMBER OF DAYS TAKEN
TO COMPLETE A CERTAIN PROJECT

A certain project was given to 25 students in a club to complete. The graph above shows a distribution of the number of days it took the students to complete the project. What is the average (arithmetic mean) number of days it took the students to complete the project?

$\overline{avg}$

- ○ 5.0
- ✓ 5.2
- ○ 5.4
- ○ 5.6

$2 \cdot 3 = 6$
$4 \cdot 4 = 16$
$9 \cdot 5 = 45$
$8 \cdot 6 = 48$
$1 \cdot 7 = 7$
$1 \cdot 8 = 8$
_____
130

$$\begin{array}{r} 5. \\ 25)\overline{130} \\ 125 \\ \hline 5 \end{array}$$

$5 \frac{5}{25} = \frac{1}{5}$

$\boxed{5.2}$

Praxis Review – Form 1

#10

Answer the question by clicking on the correct response.

$2(x - 2)(3x - 5) =$

- ○ $2x^2 - 22x + 20$
- ○ $3x^2 + 22x - 10$
- ✗ $6x^2 - 22x + 20$
- ○ $6x^2 - 22x - 10$

$(x-2)(3x-5)$

$3x^2 - 5x - 6x + 10$

$2\left(3x^2 - 11x + 10\right)$

$6x^2 - 22x + 20$

$$\begin{array}{r} 3x - 5 \\ x - 2 \\ \hline -6x + 10 \\ 3x^2 - 5x \\ \hline 3x^2 - 11x + 10 \end{array}$$

Praxis Review – Form 1

#11

Answer the question by clicking on the correct response.

Jane withdrew half of the money in her savings account. She later withdrew an additional $5.00, leaving a $12.75 balance in the account. If no other transactions were performed, how much money was in Jane's account originally?

- ✗ $35.50
- ○ $31.00
- ○ $30.50
- ○ $15.50

$$X - \frac{1}{2}X - 5 = 12.^{75}$$

$$\frac{1}{2}X - 5 = 12.^{75}$$

$$2 \;\; \frac{1}{2}X = 17^{75} \cdot 2$$

$$X = \$35.50$$

Praxis Review – Form 1

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

At a thrift store, each shirt costs $4, each pair of pants costs $7, and there is no sales tax on clothing purchases. Jason bought some shirts and some pairs of pants at the thrift store and paid exactly $41 How many shirts and how many pairs of pants did Jason buy at the thrift store?

Jason bought [   ] shirts and [   ] pairs of pants.

$S = \$4$

$P = \$7$

#	Shir	Pants
1	4	7
2	8	14
3	12	21
4	16	28
5	20	35

Total ⇒ 41

5 Shir $ 3 Pant

Praxis Review – Form 1

Answer the question by clicking on the correct response.

The graph shown on the number line above represents the set of values of x satisfying which of the following inequalities?
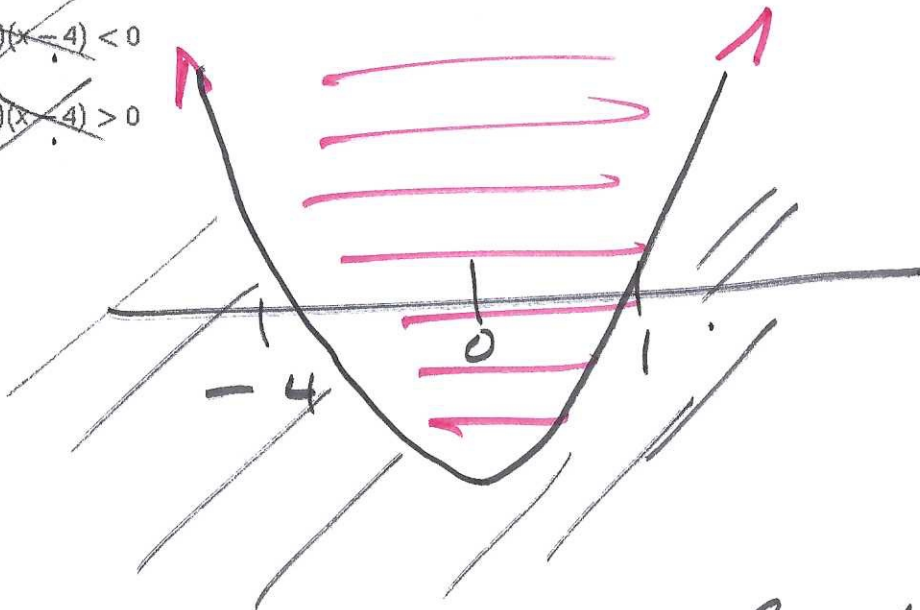
- ☒ $(x-1)(x+4) < 0$ y
- ☒ $(x-1)(x+4) > 0$ y
- ○ $(x+1)(x-4) < 0$
- ○ $(x+1)(x-4) > 0$

$$x < -4 \cup x > 1$$

?

-4 0 1

Subs y for 0, y is less the
$y <$
Graph below curve
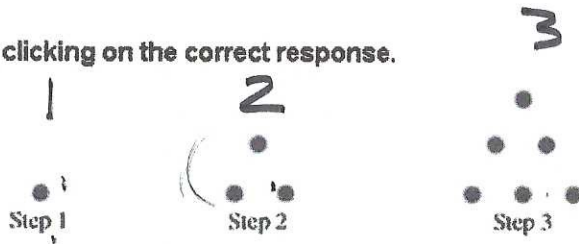
OR

Subs convenient #'s – pick 0

Praxis Review – Form 1

#14

Answer the question by clicking on the correct response.

1

●

Step 1

2

●
● ●

Step 2

3

●
● ●
● ● ●

Step 3

If the pattern above continues indefinitely, which of the following expressions could be used to find the number of dots in step *n* ?

Plug in

○ $2n - 1$ ✗

✗ $\dfrac{n^2 + n}{2}$ ✓

○ $n^2 - n$ ✗

○ $\dfrac{n^2 + 3n + 2}{n}$ ✗

Praxis Review – Form 1

Answer the question by clicking on the correct response.

In a certain town, the ratio of the number of children to the number of adults is 3 to 7. What percent of the town's population are adults?

- ○ 40%
- ○ 43%
- ○ 57%
- ✗ 70%

$$\frac{ch}{ad} = \frac{3x}{7x}$$

$$\frac{ad}{pop} = \frac{7}{10} = 70\%$$

$$3x + 7x$$

Ratio & Proportion
if more info is given NOT
in terms of ratio – alg