Praxis Review - Form 3

#46

Answer the question below by clicking on the correct response.

Sean's bookshelf contains science fiction, mystery, fantasy, and nonfiction books. There are an equal number of science fiction books and mystery books, there are $\frac{1}{2}$ as many fantasy books as there are mystery books, and there are 5 times as many nonfiction books as there are fantasy books. If Sean chooses a book at random from the bookshelf, what is the probability that Sean will choose a science fiction book?

○ $\frac{1}{2}$

○ $\frac{1}{4}$

⊗ $\frac{1}{5}$

○ $\frac{1}{10}$

Prob . sum is 1

SF   x

M   x

F $\frac{1}{2}$x

NF $\frac{5}{2}$x

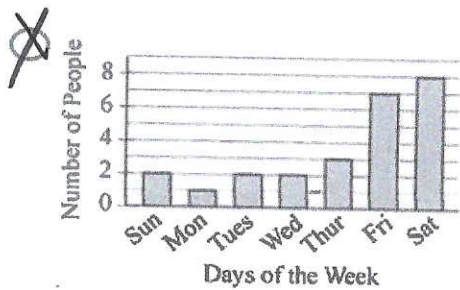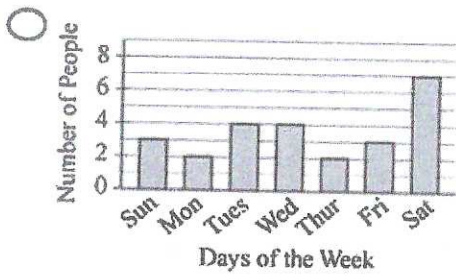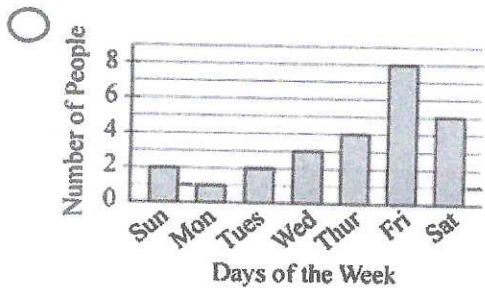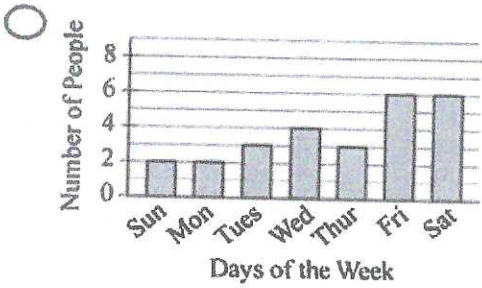$$x + x + \tfrac{1}{2}x + \tfrac{5}{2}x = 1$$

$$5x = 1$$

$$x = \tfrac{1}{5}$$

Praxis Review - Form 3

#47

**Answer the question below by clicking on the correct response.**

A group of 25 people were asked to choose their favorite day of the week. Each person chose only one day. Saturday was chosen by more people than any other day was, and Monday was chosen by fewer people than any other day was. Which of the following bar graphs best represents the information?

○

○

○

⊗

#48

Answer the question below by clicking on the correct response.
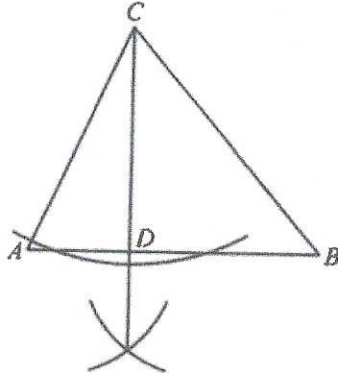
Which of the following geometric constructions is represented in the figure shown?

○ The construction of angle bisector $\overline{CD}$ of $\angle ACB$

○ The construction of median $\overline{CD}$ in $\triangle ABC$

○ The construction of perpendicular bisector $\overline{CD}$ of $\overline{AB}$

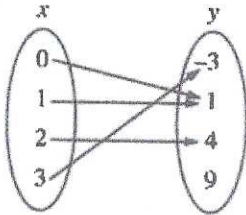⊘ The construction of altitude $\overline{CD}$ in $\triangle ABC$
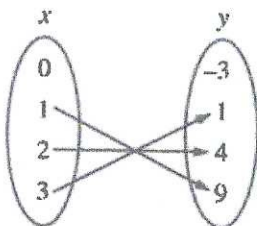
#49

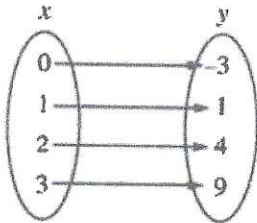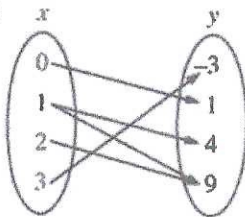**Click on your choices.**

Which of the following mapping diagrams show that *y* is a function of *x* ?

Select **all** that apply.

Fct

every x - only 1 y

Praxis Review - Form 3

#50

Click on the answer box and type in a number. Backspace to erase.
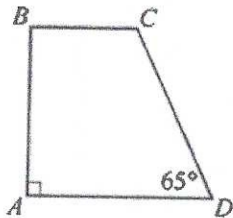
The figure shows trapezoid *ABCD*. If side *AD* is parallel to side *BC*, and angle *BAD* is a right angle, what is the measure, in degrees, of angle *BCD* ?

[   ] degrees

Sum Int $\angle$'s = $(n-2)\,180$

$\qquad$ = $(4-2)\,180$

$\qquad$ = 360

$\angle B = 90$, $\parallel$ lines cut by $\top$ sum of SSI $\angle$'s is 180

$\qquad \therefore \ \angle B = 90$

$\angle A + \angle B + \angle C + \angle D = 360$

$90 + 90 + \angle C + 65 = 360$

$\qquad\qquad \angle C = 115$

#51

Answer the question below by clicking on the correct response.

In a recent poll, 570 registered voters were selected at random. Of the selected registered voters, 180 indicated that they would vote for the incumbent candidate, while the rest indicated that they would vote for the opponent. According to these results, what is the expected ratio of registered voters for the incumbent to those for the opponent?

- ⊘ 6 : 13
- ◯ 6 : 19
- ◯ 13 : 6
- ◯ 19 : 6

570 voters

180 inc.

570 - 180 = opp

390 =

$$\frac{inc}{opp} = \frac{180}{390}$$

$$= \frac{6}{13}$$

Praxis Review - Form 3

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

A school outfit consists of 1 shirt, 1 pair of pants, and 1 pair of shoes. If a student has 6 shirts, 5 pairs of pants, and 2 pairs of shoes to choose from, how many different school outfit arrangements are possible?

$\boxed{}$ outfits

FCP

$6 \cdot 5 \cdot 2 = 60$

Praxis Review - Form 3

#53

Answer the question below by clicking on the correct response.

12, 3, 18, 1, 38, 15, 12, 0, 27, 21, 5, 14

Which of the following is true about the data set shown?

○ The mean is less than the median.

☒ The median is greater than the mode.

○ The range is less than the mean.

○ The mode is equal to the mean.

List in order

0 1 3 5 12 12 14 15 18 21 27 38

Mean $\frac{166}{12} \approx 13.8$

Median   13

Mode   12

Range   38

Praxis Review - Form 3

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

Truck rental company A charges a one-time fee of $85.00 to rent a truck, plus $0.60 for every mile driven. Truck rental company B charges a one-time fee of $61.00 to rent a truck, plus $0.90 for every mile driven. How many miles must be driven for the cost of the two truck rental companies to be the same?

☐ miles

$A = .60m + 85$

$B = .90m + 61$

Set $A = B$

$.90m + 61 = .60m + 85$

$.30m = 24$

$m = 80$

Praxis Review - Form 3

#55

Answer the question below by clicking on the correct response.

	$2(2x - 4) + 3x = 5x + 30$
Step 1:	$4x - 8 + 3x = 5x + 30$
Step 2:	$4x + 3x - 8 = 5x + 30$
Step 3:	$7x - 8 = 5x + 30$
Step 4:	$7x - 8 + 8 - 5x = 5x + 30 + 8 - 5x$
Step 5:	$2x = 38$
Step 6:	$\frac{1}{2}(2x) = \frac{1}{2}(38)$
Step 7:	$x = 19$

c

An equation and the steps that yield the solution are shown. Which of the steps is justified by the commutative property of addition?

An equation and the steps that yield the solution are shown. Which of the steps is justified by the commutative property of addition?

○ Step 1

✗ Step 2

○ Step 3

○ Step 4