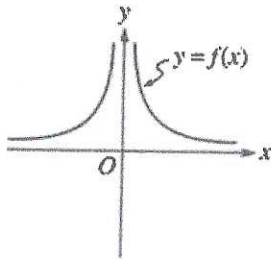# Praxis Review - Form 2

#31

For each blank, select one entry from the corresponding column of choices that best completes the text.

The figure shows the graph of the function $f(x) = \left|\dfrac{5}{x}\right|$ in the xy-plane. What are the domain and range of f?

The domain of f is the set of (i) _____, and the range of f is the set of (ii) _____

Blank (i)
all real numbers
all real numbers not equal to zero
all real numbers greater than zero

Blank (ii)
all real numbers
all real numbers not equal to zero
all real numbers greater than zero

#32

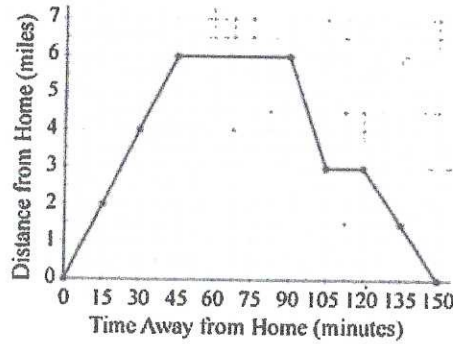**Answer the question below by clicking on the correct response.**

The sides of a square are each 8 centimeters long. If two of the opposite sides were reduced by 3 centimeters each, and the other two sides were increased by 3 centimeters each to form a rectangle, which of the following statements is true?

○ The area of the rectangle is 9 square centimeters less than the area of the square, and the perimeter of the rectangle is 6 centimeters greater than the perimeter of the square.

○ The area of the rectangle is 9 square centimeters less than the area of the square, and the perimeters of the rectangle and square are the same.

○ The area of the rectangle is 9 square centimeters greater than the area of the square, and the perimeter of the rectangle is 6 centimeters less than the perimeter of the square.

○ The areas of the rectangle and the square are the same, and the perimeters of the rectangle and the square are the same.

#33

Click on your choices.

Ben bicycled a distance of 6 miles from his home to the mall, then he returned home after spending time at the mall. The line graph above shows Ben's distance from home, in miles, versus the time away from home, in minutes, for his bike trip. Which of the following statements about Ben's trip are supported by the graph?

Select **all** that apply.

☐ Ben spent 150 minutes at the mall.

☐ Ben traveled at an average speed of 8 miles per hour on the way to the mall.

☐ Ben stopped for 15 minutes on the way home from the mall.

☐ Ben spent 90 minutes riding his bike during the total trip.

#34

Answer the question below by clicking on the correct response.

When the integer x is divided by 6, the remainder is 4. When x is divided by 8, the remainder is 0. Which of the following is a possible value of x ?

- ○ 78
- ○ 94
- ○ 120
- ○ 136

Praxis Review - Form 2

Answer the question below by clicking on the correct response.

A car traveled a certain distance in t hours. The average speed of the car was 50 miles per hour for the first hour and 40 miles per hour for each hour after the first. Which of the following expressions gives the distance the car traveled, in miles, in terms of t ?

○ $40 + 50\,(t - 1)$

○ $50 + 40\,(t - 1)$

○ $50t + 40\,(t - 1)$

○ $50t + 40t$

#36

Click on your choices.

A rectangle has a length of x inches and a width of y inches, where x and y are integers. If $\frac{x}{y} = \frac{5}{8}$, which of the following could be the perimeter, in inches, of the rectangle?

Select **all** that apply.

☐ 52

☐ 65

☐ 78

☐ 80

#37

Answer the question below by clicking on the correct response.

An English teacher surveyed 48 tenth-grade students and found that 18 had read *Hamlet*, 20 had read *Macbeth*, and 21 had read neither play. How many of the students surveyed had read both plays?

○ 11

○ 18

○ 23

○ 25

Praxis Review - Form 2

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

If $x^2 - 3x - 54 = (x + k)(x + m)$ for all values of x, where k and m are constants, what is the value of $|k - m|$?

$$|k - m| = \boxed{}$$

#39

Answer the question below by clicking on the correct response.

A student took 1 hour to finish an exam. The student spent $\frac{1}{5}$ of the total time answering multiple-choice questions and $\frac{3}{4}$ of the remaining time answering free-response questions. The time that was left was spent answering an essay question. What is the ratio of the time spent on the multiple-choice questions to the time spent on the free-response questions to the time spent on the essay question?

○ 1 to 3 to 1

○ 1 to 3 to 2

○ 2 to 2 to 3

○ 2 to 3 to 1

#40

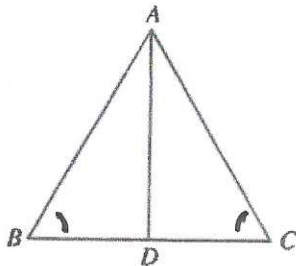**Answer the question below by clicking on the correct response.**

A certain high school class consists of juniors and seniors. There are 23 students in the class, and the number of seniors is 7 less than twice the number of juniors. How many seniors are in the class?

- ⚪ 8
- ⚪ 13
- ⚪ 15
- ⚪ 16

Praxis Review - Form 2

#41

Click on your choices.

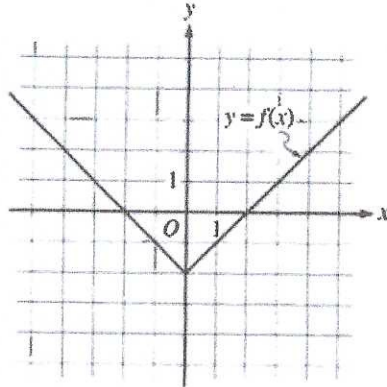In triangle ABC shown, angle ADC is a right angle and $AB = AC$. Which of the following statements must be true?

Select **all** that apply.

☐ Angle ABC is congruent to angle ACB.

☐ Segment AD is the perpendicular bisector of segment BC.

☐ The length of segment AB is equal to the length of segment BC.

Praxis Review - Form 2

Answer the question below by clicking on the correct response.

Which of the following could be the equation of the function $y = f(x)$ shown in the xy-plane above?

○ $y = |x + 2|$

○ $y = |x| + 2$

○ $y = |x - 2|$

○ $y = |x| - 2$

Praxis Review - Form 2

Click on your choices.

In the equation $d = rt$, d represents a distance traveled, r represents the average rate of speed at which the distance is traveled, and t represents the time it takes to travel the distance. For each of the following relationships, indicate whether the relationship is directly proportional or inversely proportional.

Relationship	Directly Proportional	Inversely Proportional
The relationship between the change in d and the change in r when t is constant	○	○
The relationship between the change in d and the change in t when r is constant	○	○
The relationship between the change in r and the change in t when d is constant	○	○

#44

Answer the question below by clicking on the correct response.

The number of bacteria in a culture doubles every hour. If the culture started with 10 bacteria, which of the following functions models the number of bacteria in the culture after t hours?
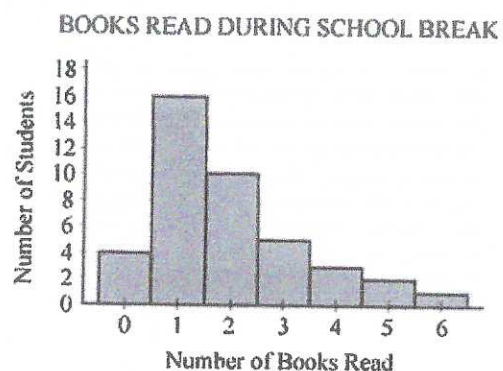
○ $f(t) = 10t$

○ $f(t) = 10 + 2t$

○ $f(t) = 10^t$

○ $f(t) = 10(2)^t$

Praxis Review - Form 2

#45

Answer the question below by clicking on the correct response.

BOOKS READ DURING SCHOOL BREAK

A group of 41 students were asked to record the number of books each of them read while on a break from school. The histogram above shows the number of students that read from 0 to 6 books over the break. Based on the histogram, what was the median number of books read by the students?

- ⭕ 1
- ⭕ 2
- ⭕ 3
- ⭕ 4