CHECKPOINT CHALLENGE: PRACTICE PACING

Question 1

The table below gives the exact probability of randomly drawing a card of a particular color from a deck of solid-colored cards.

Card Color	Probability
Blue	0.2
Green	0.1
Orange	0.1
Purple	0.2
Yellow	0.4

What is the probability of randomly drawing a card that is NOT blue and is NOT yellow?

(A) 0.4
(B) 0.6
(C) 0.72
(D) 0.8

Question 2

For what value of k does the quadratic equation $x^2 - x + k = 0$ have solutions of $x = -3$ and $x = 4$?

(F) –12
(G) –1
(H) 1
(J) 12

Question 3

Given the function g defined as $g(x) = 6 - 2x$ has domain $\{-2, 0, 1\}$, what is the range of g?

(A) $\{-8, 0, 4\}$
(B) $\{2, 6, 8\}$
(C) $\{4, 6, 8\}$
(D) $\{4, 6, 10\}$

Question 4

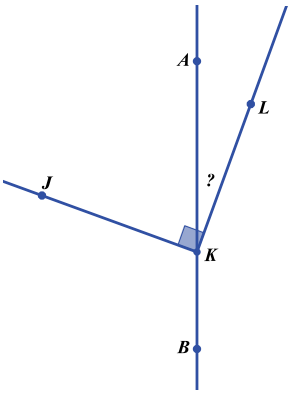
Data Set A consists of 6 numbers listed below. Data Set B consists of the 6 numbers in Data Set A and a 7th number, which is less than 40. How will the mean and the median of Data Set B compare to the median and mean of Data Set A?

$$32, 39, 48, 50, 50, 61$$

(A) The median and mean of Data Set B will be less than the median and mean of Data Set A.
(B) The median of Data Set B will be less than the median of Data Set A and the mean will be the same for both sets.
(C) The mean will be the same for both sets and median of Data Set B will be greater than the median of Data Set A.
(D) The median and mean of Data Set B will be greater than the median and mean of Data Set A.

Question 5

In the figure below, K is on $\overline{AB}$, and the measures of $\angle JKL$ and $\angle JKB$ are $90°$ and $110°$, respectively. If it can be determined, what is the measure of $\angle AKL$?



(F) 10°
(G) 20°
(H) 30°
(J) Cannot be determined from the given information

Question 6

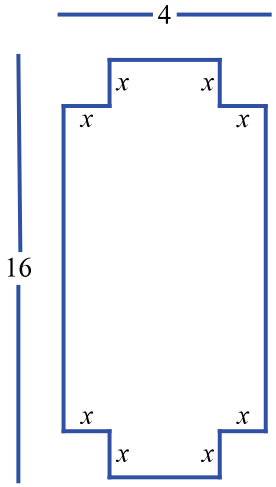
The statement $2(x+7)-x=10-(x-14)$ is true for which of the following?

(F) $x=0$ only
(G) $x=5$ only
(H) no values of x
(J) all values of x

Question 7

Squares with sides of length x in. have been removed from each corner of a rectangle measuring 4 in. by 16 in., resulting in the figure shown below. In terms of x, what is the area, in square inches, of the figure?

(A)
(B)
(C) $64-8x$
(D)



Question 8

For all values of a such that $a<-1$, which of the following expressions has the greatest value?

(F) a
(G) $a+1$
(H) $-\frac{1}{a}$
(J) $\frac{1}{a}$

Question 9

The solution to the equation $15=7v+20$ is which of the types of numbers listed below?

I. Positive
II. Negative
III. Rational
IV. Irrational
V. Integer

(F) I and IV only
(G) II and III only
(H) II and IV only
(J) I, III, and V only

Question 10

In the figure below, points *A*, *B*, *C*, and *D* are on the sides of the square *KLMN*. Arc $\overset{\frown}{AB}$ has center at *L*, $\overset{\frown}{BC}$ at *M*, $\overset{\frown}{CD}$ at *N*, and $\overset{\frown}{AD}$ at *K*. All of the arcs have a radius of 5 feet. What is the area, in square feet of the shaded region?

(A) $40-10\pi$
(B) $40-25\pi$
(C) $100-5\pi$
(D) $100-25\pi$