1. Write the set using set-builder notation.

$$\{\text{red}, \text{white}, \text{blue}\}$$

A. $C = \{x | x \text{ is a color on the Norwegian flag.}\}$

B. $C = \{x | x \text{ is a color on the Brazilian flag.}\}$

C. $C = \{x | x \text{ is a color on the Botswanan flag.}\}$

D. $C = \{x | x \text{ is a color on the Equadorian flag.}\}$

E. $C = \{x | x \text{ is a color on the Egyptian flag.}\}$

F. $C = \{x | x \text{ is a color on the Canadian flag.}\}$

G. $C = \{x | x \text{ is a color on the Russian flag.}\}$

H. $C = \{x | x \text{ is a color on the Italian flag.}\}$

2. Write the set using the roster method. List repeated elements only once.

P is the set of prime numbers less than 20.

A. $P = \{2, 3, 5, 7, 11, 13, 17, 19\}$

B. $P = \{2, 3, 5, 7, 10, 13, 17, 19\}$

C. $P = \{2, 3, 5, 7, 11, 13, 18, 19\}$

D. $P = \{2, 3, 5, 8, 11, 13, 17, 19\}$

E. $P = \{1, 3, 5, 7, 11, 13, 17, 19\}$

F. $P = \{2, 3, 5, 7, 11, 12, 17, 19\}$

G. $P = \{2, 3, 4, 7, 11, 13, 17, 19\}$

H. $P = \{2, 3, 6, 7, 11, 13, 17, 19\}$

3. Write the following set using the descriptive method.

$$\{11, 22, 33, 44, \ldots\}$$

A. The collection of all even integer multiples of 11.

B. The collection of all odd natural number multiples of 11.

C. The collection of all integer multiples of 11.

D. The collection of all natural number multiples of 11.

E. The collection of all even natural number multiples of 11.

F. The collection of all odd integer multiples of 11

4. The cardinality of the set $\{2, 3, 5, 7, 11\}$ is

A. 5

B. 0

C. 3

D. 1

E. 6

F. 7

G. 2

H. 4

5. Write the set using the roster method. List repeated elements only once.

$$C = \{x | x \in N \text{ and } x < 9\}$$

A. $C = \{1, 2, 4, 5, 6, 7, 8\}$

B. $C = \{9, 10, 11, 12, \ldots\}$

C. $C = \{10, 12, 14, 16, \ldots\}$

D. $C = \{9, 11, 13, 15, \ldots\}$

E. $C = \{10, 11, 12, 13, \ldots\}$

F. $C = \{1, 2, 3, 4, 5, 6, 7, 8\}$

G. $C = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

H. $C = \{1, 2, 3, 5, 6, 7, 8, 9\}$

6. The collection $\{x | x$ is a number larger than the number of people in the United States$\}$ is well-defined.

A. False

B. True

7. The collection $\{x|x$ is a patient in Oregon waiting for an organ transplant$\}$ is well-defined.

A. True

B. False

8. The cardinality of the set $\{7\}$ is

A. 13

B. 0

C. 10

D. 12

E. 11

F. 1

G. 2

H. 7