

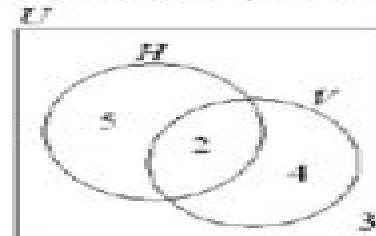
CXC MODEL EXAM

Instruction (a): Answer all answers by circling the most suitable response to each item.

- How many kilograms are there in 3r?
(A) 30 (B) 300 (C) 3000 (D) 30000
- 8% of 500 =
(A) \$40 (B) \$400 (C) \$20 (D) \$200
- Which of the following letters has at least one line of symmetry?
(A) A (B) B (C) F (D) G
- If 1600 out of 8000 do not eat fish, then the percentage that eat fish is
(A) 20 (B) 64 (C) 80 (D) 96
- The base ten equivalent of 301₃ is
(A) 4 (B) 31 (C) 76 (D) 81
- If $p * q$ means $p^2 - pq$, then $5 * 2$ is equal to
(A) 15 (B) -21 (C) 10 (D) 39
- $7\frac{2}{3} + 5\frac{4}{7} =$
(A) $12\frac{6}{10}$ (B) $13\frac{5}{21}$
(C) $12\frac{3}{5}$ (D) $13\frac{8}{21}$
- The point $P(2, 7)$ is mapped onto $P'(2, -7)$ by a transformation represented by the matrix, M . The matrix M is
(A) $\begin{bmatrix} 1 & -1 \\ 0 & 1 \end{bmatrix}$ (B) $\begin{bmatrix} 1 & 0 \\ 0 & -1 \end{bmatrix}$
(C) $\begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix}$ (D) $\begin{bmatrix} -1 & 0 \\ 0 & 1 \end{bmatrix}$
- 301 can be written as
(A) $3 \times 10^2 + 1$
(B) $3 \times 10^3 + 1$
(C) $3 \times 10^2 + 1 \times 10$
(D) $3 \times 10^2 + 1 \times 10$
- If $p = (3x - q)$, then $6x =$
(A) $2(p + 3q)$
(B) $2(p + q)$
(C) $p + 3q$
(D) $p + q$
- Which of the following sets is equivalent to $\{a, b, c, d\}$?
(A) {4}
(B) {a, b, c}
(C) {p, q, r, s}
(D) {1, 2, 3, 4, 5}

- If $Q = \{a, b, c, d, e\}$ how many subsets can be obtained from the set Q ?
(A) $2 + 5$
(B) 2×5
(C) 5^2
(D) 2^5

Item 13 refers to the following Venn diagram.

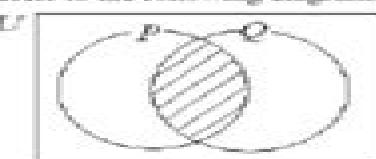


- In the Venn diagram above,
 $U = \{\text{students who play games}\}$
 $H = \{\text{students who play hockey}\}$
 $V = \{\text{Students who play volleyball}\}$

The number of students in each set is indicated.
How many students do not play volleyball?

- (A) 2
(B) 3
(C) 5
(D) 8

Item 14 refers to the following diagram.



- The two circles above represent sets P and Q . If $P = \{\text{factors of 6}\}$ and $Q = \{\text{factors of 4}\}$, then the shaded region represents
(A) {1}
(B) {1, 2}
(C) {4, 6, 8, ...}
(D) {12, 24, 36, ...}
- A woman buys a pair of shoes at a sale. She pays \$45, saving \$15 on the normal price. The percentage discount on the pair of shoes is
(A) 25
(B) 30

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Yijin Wang

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