

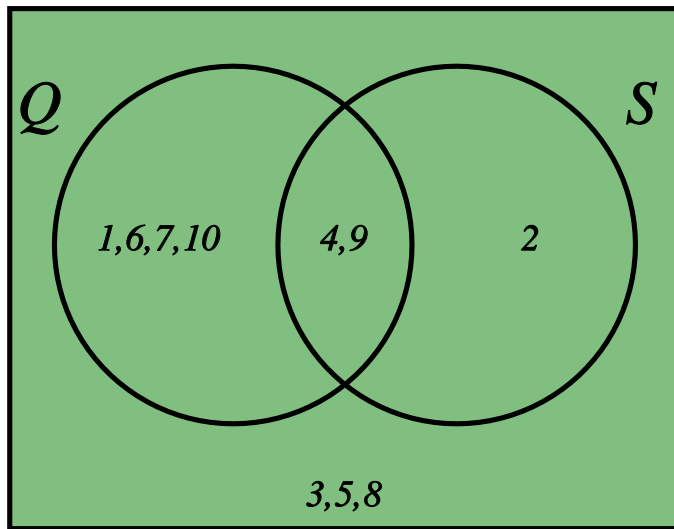
Sets & Venn Diagrams

Name: _____ Class: _____ Date: _____

Mark / 11 %

1) The Venn Diagram below shows two sets, Q and S.

[1]

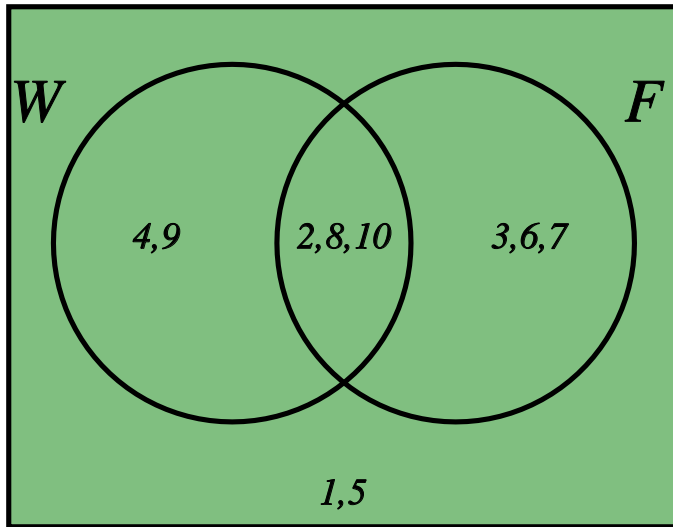


List the members of:

- a) ξ b) Q c) S

2) The Venn Diagram below shows two sets, W and F .

[1]



List the members of the following sets

- | | | | |
|----|------------|----|------------|
| a) | $W \cup F$ | b) | $W \cap F$ |
| c) | W' | d) | F' |

3) Given the following information about a Venn Diagram

[1]

$$\xi = \{ \text{integers from 1 to 10} \}$$

$$E = \{4,5,6,8\}$$

$$F = \{1,4,10\}$$

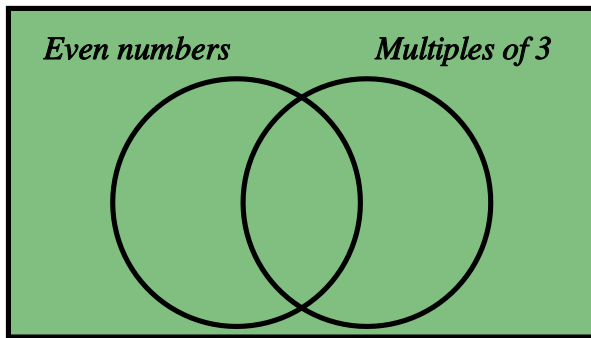
List the members of the following sets

- | | | | |
|----|------------|----|------------|
| a) | $E \cup F$ | b) | $E \cap F$ |
| c) | E' | d) | F' |

4) Put the numbers in the correct positions in the Venn Diagram below:

[1]

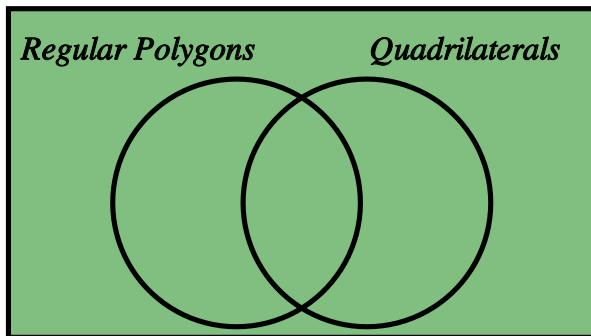
3,6,14,15,16,18,20,21,24



5) Put the shapes in the correct positions in the Venn Diagram below:

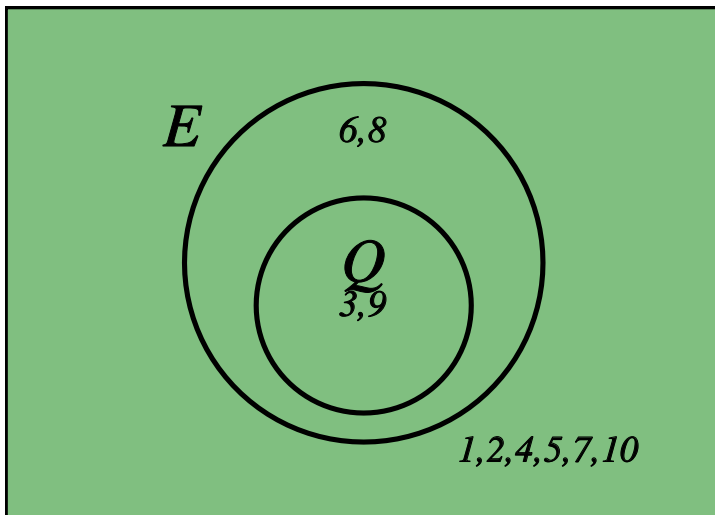
[1]

rectangle,regular hexagon,square



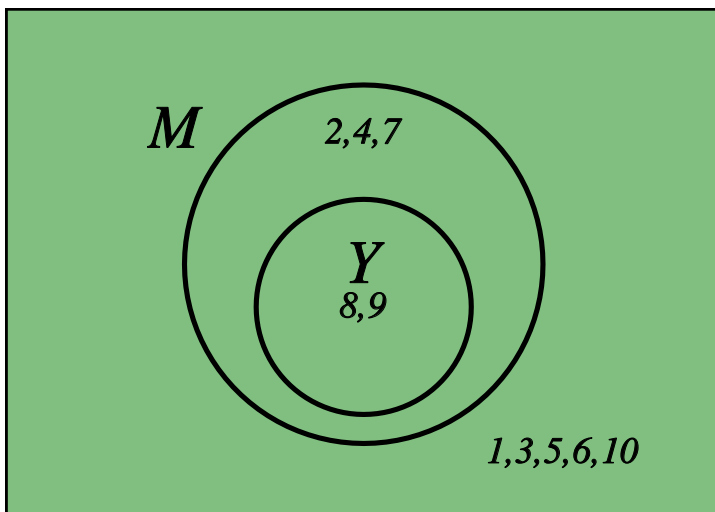
6) List the members of E using the Venn Diagram below.

[1]



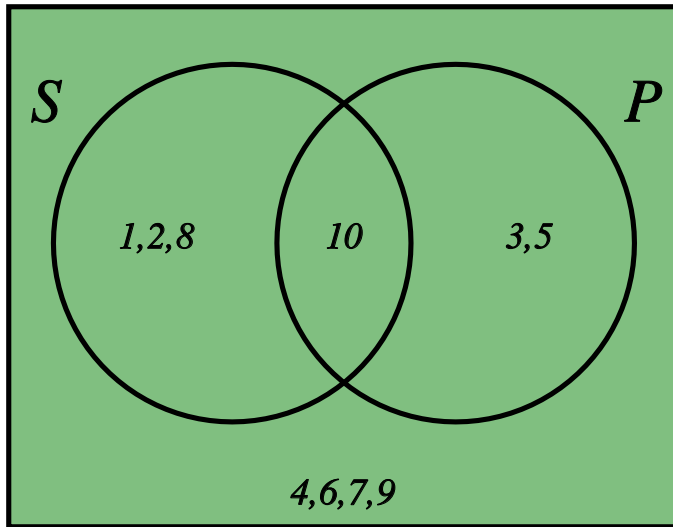
7) List the members of $M \cap Y$ using the Venn Diagram below.

[1]



8) The Venn Diagram below shows two sets, S and P.

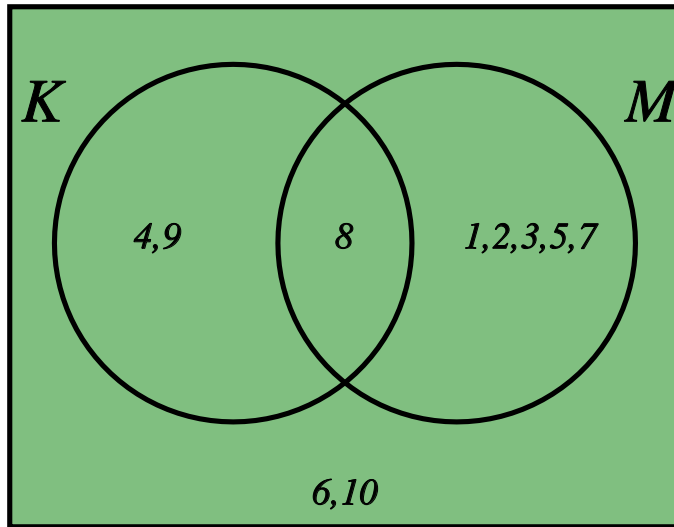
[1]



Find:

- a) $n(\xi)$ b) $n(S)$ c) $n(P)$

9) The Venn Diagram below shows two sets, K and M.



Find a) $n(K \cup M)$

b) $n(K \cap M)$

c) $n(K')$

d) $n(M')$

[1]

10) A Venn diagram contains the following information

$\xi = \{ \text{integers from 1 to 10} \}$

$P = \{2, 3, 5, 9, 10\}$

$G = \{4, 6, 8, 9\}$

Find a) $n(\xi)$

b) $n(P)$

c) $n(G)$

[1]

11) A Venn diagram contains the following information

$$\xi = \{ \text{integers from 1 to 10} \}$$

$$S = \{2,3,5,8,9,10\}$$

$$E = \{1,5,6,7\}$$

Find a) $n(S \cup E)$

b) $n(S \cap E)$

c) $n(S')$

d) $n(E')$

[1]

Solutions for the assessment Sets & Venn Diagrams

1) a) $\xi = \{ 1,2,3,4,5,6,7,8,9,10 \}$

b) $Q = \{ 1,4,6,7,9,10 \}$

c) $S = \{ 2,4,9 \}$

2) a) $W \cup F = \{ 2,3,4,6,7,8,9,10 \}$

b) $W \cap F = \{ 2,8,10 \}$

c) $W' = \{ 1,3,5,6,7 \}$

d) $F' = \{ 1,4,5,9 \}$

3) a) $E \cup F = \{ 1,4,5,6,8,10 \}$

b) $E \cap F = \{ 4 \}$

c) $E' = \{ 1,2,3,7,9,10 \}$

d) $F' = \{ 2,3,5,6,7,8,9 \}$

4)

Even numbers = 14,16,20

Multiples of 3 = 3,15,21

Both even numbers and multiples of 3 = 6,18,24

5)

Regular polygons = regular hexagon

Quadrilaterals = rectangle

Both regular polygons and quadrilaterals = square

6) $E = \{ 3,6,8,9 \}$

7) $M \cap Y = \{ 8,9 \}$

8) a) $n(\xi) = 10$

b) $n(S) = 4$

c) $n(P) = 3$

9) a) $n(K \cup M) = 8$

b) $n(K \cap M) = 1$

c) $n(K') = 7$

d) $n(M') = 4$

10) a) $n(\xi) = 10$

b) $n(P) = 5$

c) $n(G) = 4$

11) a) $n(S \cup E) = 9$

b) $n(S \cap E) = 1$

c) $n(S') = 4$

d) $n(E') = 6$