

# INTERVALS

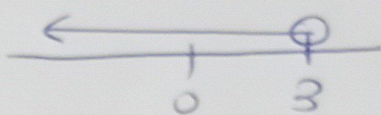
①

① a)  $] -8, 0]$



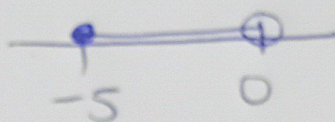
$$\{x \in \mathbb{R} / -8 < x \leq 0\}$$

b)  $] -\infty, 3[$



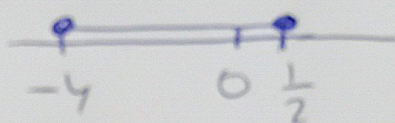
$$\{x \in \mathbb{R} / x < 3\}$$

c)  $[-5, 0[$



$$\{x \in \mathbb{R} / -5 \leq x < 0\}$$

d)  $[-4, \frac{1}{2}]$



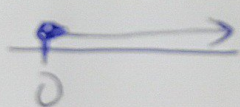
$$\{x \in \mathbb{R} / -4 \leq x \leq \frac{1}{2}\}$$

e)  $] -1, 5]$



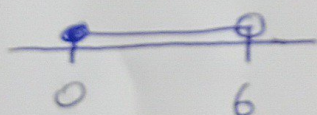
$$\{x \in \mathbb{R} / -1 < x \leq 5\}$$

f)  $[0, \infty[$



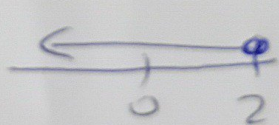
$$\{x \in \mathbb{R} / x \geq 0\}$$

g)  $[0, 6[$

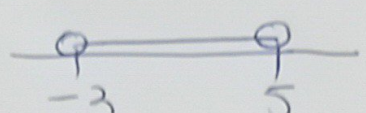


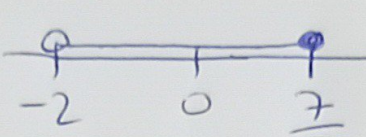
$$\{x \in \mathbb{R} / 0 \leq x < 6\}$$

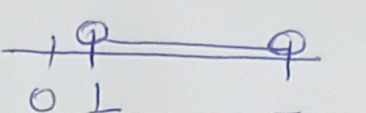
h)  $] -\infty, 2]$

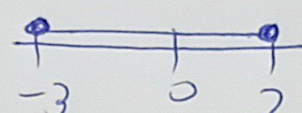


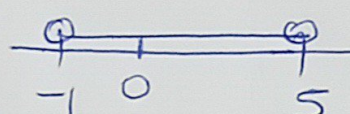
$$\{x \in \mathbb{R} / x \leq 2\}$$

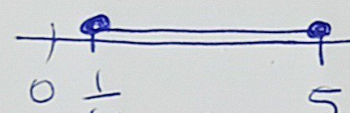
i)  $] -3, 5[$    $\{x \in \mathbb{R} / -3 < x < 5\}$  <sup>(2)</sup>

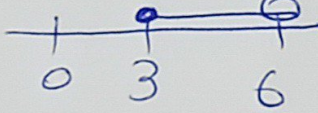
j)  $] -2, \frac{7}{2}]$    $\{x \in \mathbb{R} / -2 < x \leq \frac{7}{2}\}$

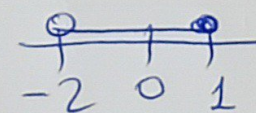
k)  $] \frac{1}{4}, 5[$    $\{x \in \mathbb{R} / \frac{1}{4} < x < 5\}$

e)  $[-3, 2]$    $\{x \in \mathbb{R} / -3 \leq x \leq 2\}$

m)  $] -1, 5[$    $\{x \in \mathbb{R} / -1 < x < 5\}$

n)  $[\frac{1}{4}, 5]$    $\{x \in \mathbb{R} / \frac{1}{4} \leq x \leq 5\}$

o)  $[3, 6[$    $\{x \in \mathbb{R} / 3 \leq x < 6\}$

p)  $] -2, 1]$    $\{x \in \mathbb{R} / -2 < x \leq 1\}$

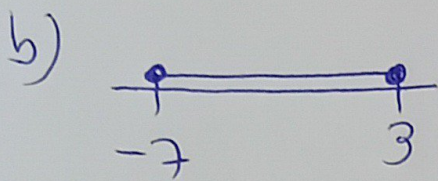
②



$$\left] -\infty, -\frac{3}{4} \right]$$

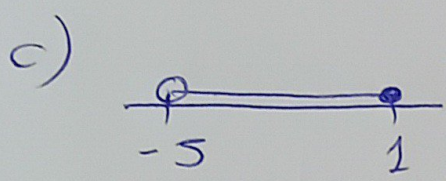
$$\left\{ x \in \mathbb{R} / x \leq -\frac{3}{4} \right\}$$

③



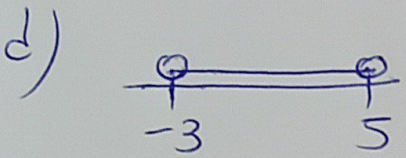
$$[-7, 3]$$

$$\left\{ x \in \mathbb{R} / -7 \leq x \leq 3 \right\}$$



$$]-5, 1]$$

$$\left\{ x \in \mathbb{R} / -5 < x \leq 1 \right\}$$



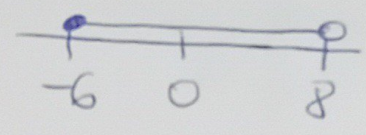
$$]-3, 5[$$

$$\left\{ x \in \mathbb{R} / -3 < x < 5 \right\}$$

3

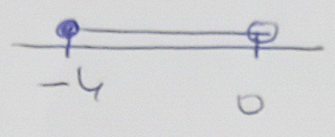
4

a)  $-6 \leq x < 8$



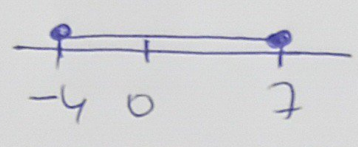
$[-6, 8[$

b)  $-4 \leq x < 0$



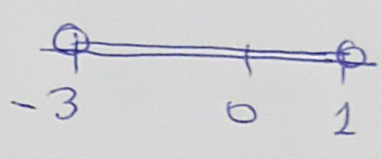
$[-4, 0[$

c)  $-4 \leq x \leq 7$



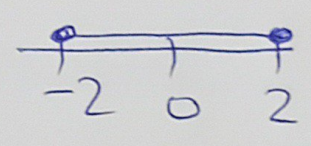
$[-4, 7]$

d)  $-3 < x < 1$



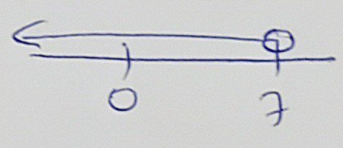
$] -3, 1 [$

e)  $-2 \leq x \leq 2$



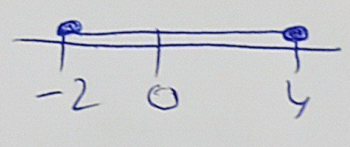
$[-2, 2]$

f)  $x < 7$



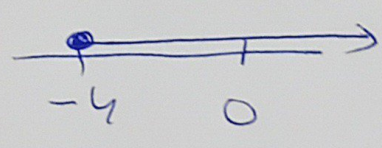
$] -\infty, 7 [$

g)  $-2 \leq x \leq 4$

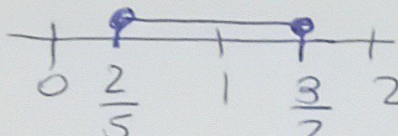


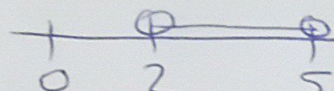
$[-2, 4]$

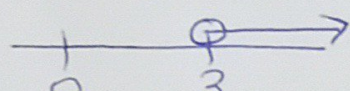
h)  $x \geq -4$

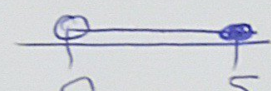


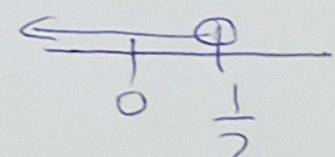
$[-4, \infty [$

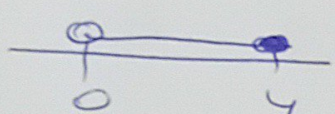
i)  $\frac{2}{5} \leq x \leq \frac{3}{2}$    $\left[\frac{2}{5}, \frac{3}{2}\right]$  (5)

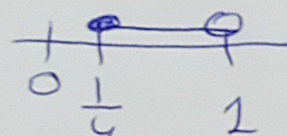
j)  $2 < x < 5$    $]2, 5[$

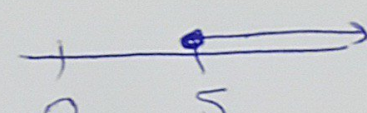
k)  $x > 3$    $]3, \infty[$

e)  $0 < x \leq 5$    $]0, 5]$

m)  $x < \frac{1}{2}$    $] -\infty, \frac{1}{2}[$

n)  $0 < x \leq 4$    $]0, 4]$

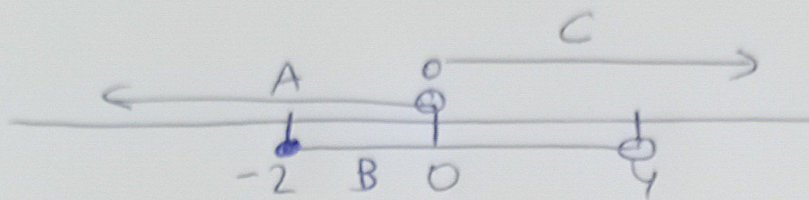
o)  $\frac{1}{4} \leq x < 1$    $\left[\frac{1}{4}, 1[$

p)  $x \geq 5$    $[5, \infty[$

$$a) A = ]-\infty, 0[$$

$$B = [-2, 4[$$

$$C = ]0, \infty[$$



$$A \cup B = ]-\infty, 4[$$

$$A \cap B = [-2, 0[$$

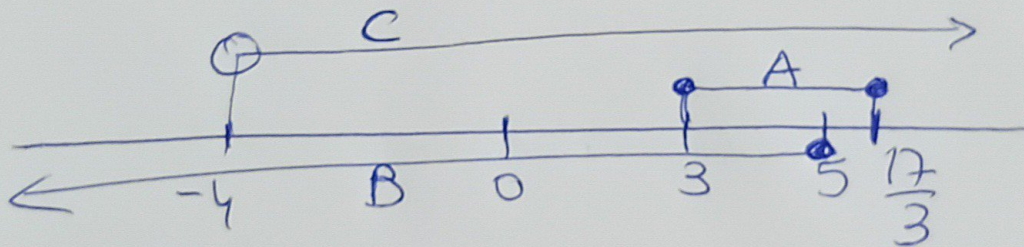
$$A \cap B \cap C = \emptyset$$

$$A \cup B \cup C = ]-\infty, \infty[$$

$$b) A = \left[3, \frac{17}{3}\right]$$

$$B = ]-\infty, 5]$$

$$C = ]-4, \infty[$$



$$(A \cup B) \cap C = \left] -\infty, \frac{17}{3} \right] \cap C = \left] -4, \frac{17}{3} \right]$$

$$A \cap B \cap C = [3, 5]$$

$$A \cup B \cup C = \left] -\infty, \infty \right[$$