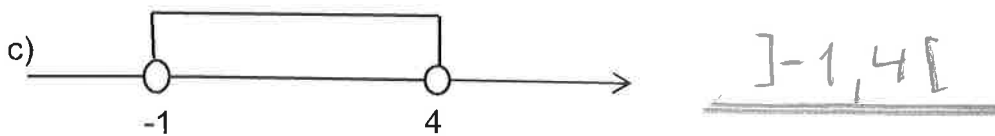
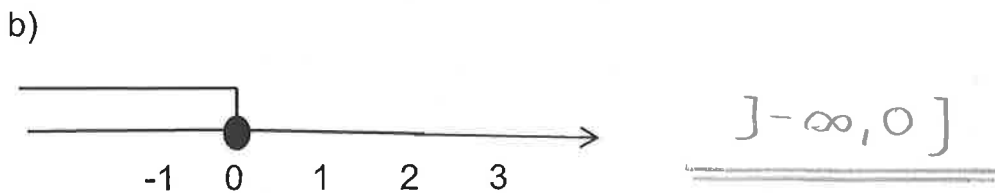
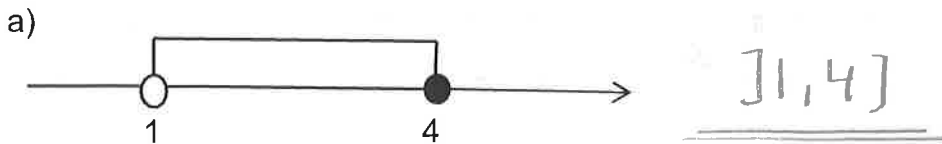


Nafn: Lauzn

1. (20%) Hvort eru eftirfarandi tölur ræðar eða óræðar?

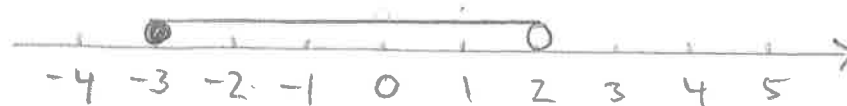
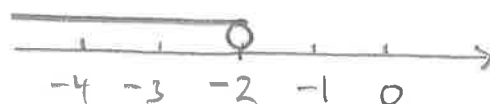
- a) $\sqrt{34}$ Óræð b) $1/3$ Ræð c) $\sqrt{125}$ Óræð d) $0,52$ ræð.

2. (20%) Ritaðu eftirfarandi talnabil með biltáknum:



3. (15%) Ritaðu mengin með talnalínu:

a) Mengi talna frá 0 til og með 5.

b) $\{x \in \mathbb{R} \mid -3 \leq x < 2\}$ c) $\{x \in \mathbb{R} \mid x < -2\}$ 

4. (25%) Gefin eru mengin $A = [0, 4[$ og $B =]2, 6]$.
Sýndu eftirfarandi mengi með biltákni.

a) $A = \underline{\underline{[0, 4[}}$

b) $A \cup B = \underline{\underline{[0, 6]}}$

c) $A \cap B = \underline{\underline{[0, 2]}}$

d) $A \cap B = \underline{\underline{]2, 4[}}$

e) $B' = \underline{\underline{]-\infty, 2] \cup]6, \infty[}}$

5. (20%) Leystu eftirfarandi ójöfnur. Skilaðu svari með biltáknum.

a) $3x \leq 1 - 7$ $x \leq -2$ $x \in \underline{\underline{]-\infty, -2]}}$
 $\frac{3x}{3} \leq \frac{-6}{3}$

b) $2 \cdot \frac{x}{2} < -3 \cdot 2$ $x \in \underline{\underline{]-\infty, -6[}}$
 $x < -6$

c) $x - 4 < 2x - 7$ $x > 3$ $x \in \underline{\underline{]3, \infty[}}$
 $-4 + 7 < 2x - x$
 $3 < x$

d) $2(x + 2) > 4(x - 1)$ $x \in \underline{\underline{]-\infty, 4[}}$
 $2x + 4 > 4x - 4$
 $2x - 4x > -4 - 4$
 $\frac{-2x}{-2} > \frac{-8}{-2}$
 $x < 4$