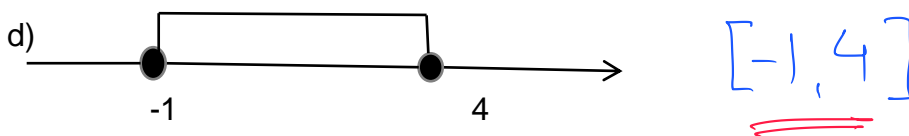
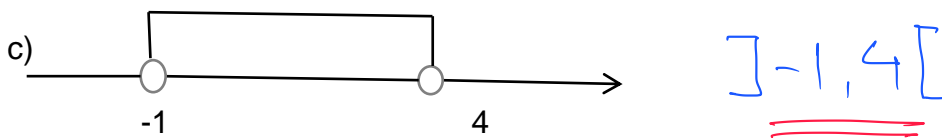
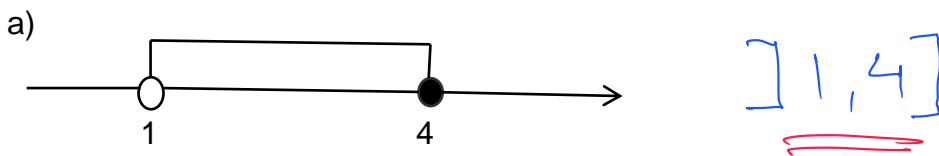


Nafn: LAUSN

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

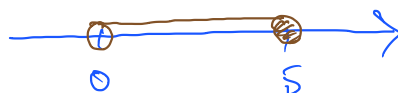
- a) $\sqrt{34}$ b) $1/3$ c) $\sqrt{125}$ d) 0,52
 ÓRÆÐ RÆÐ ÓRÆÐ RÆÐ

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

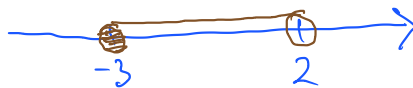


3. (15%) Ritaðu mengin með talnalínu:

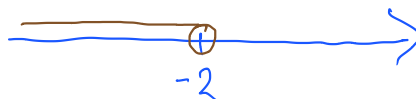
a) Mengi talna frá 0 til og með 5.



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



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

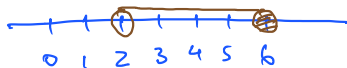


4. (25%) Gefin eru mengin $A = [0, 4[$ og $B =]2, 6]$.
 Sýndu eftirfarandi mengi með biltákni.

a) A $[0, 4[$



B $]2, 6]$

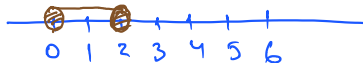


b) $A \cup B$



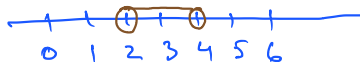
$[0, 6]$

c) $A \setminus B$



$[0, 2]$

d) $A \cap B$



$]2, 4[$

e) B'



$] -\infty, 2[\cup] 6, \infty[$

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

a) $3x \leq 1 - 7 \rightarrow 3x \leq -6$
 $x \leq -2$

$] -\infty, -2]$

b) $x/2 < -3 \rightarrow x < -6$

$] -\infty, -6[$

c) $x - 4 < 2x - 7$
 $-4 + 7 < 2x - x$
 $3 < x$

$] 3, \infty[$

d) $2(x + 2) > 4(x - 1)$
 $2x + 4 > 4x - 4$
 $4 + 4 > 4x - 2x$
 $8 > 2x$
 $\frac{8}{2} > \frac{2x}{2}$
 $4 > x$

$] -\infty, 4[$