

100/4

a) $y = x^2$
 $4 = x^2$
 $x_1 = 2$
 $x_2 = -2$

b) $y = x^2$
 $1 = x^2$
 $x_1 = 1$
 $x_2 = -1$

c) $y = x^2$
 $9 = x^2$
 $x_1 = 3$
 $x_2 = -3$

100/5

a) $[1; 2] \rightarrow y = 2x^2$
 $2 = 2 \cdot 1^2$
 $2 = 2$
 (ANO)

b) $[-1; -2] \rightarrow -2 = 2(-1)^2$
 $-2 \neq 2$
 (NE)

c) $[-2; 8] \rightarrow 8 = 2(-2)^2 = 2 \cdot 4$
 $8 = 8 \checkmark$
 (ANO)

d) $[0,5; 1] \rightarrow 1 = 2 \cdot 0,5^2$
 $1 = 2 \cdot 0,25$
 $1 \neq 0,5$
 (NE)

e) $[0; 2] \rightarrow 2 = 2 \cdot 0^2$
 $2 \neq 0$
 (NE)

100/6

a) $y = ax^2$
 $2 = a \cdot (-1)^2$
 $2 = a$
 $y = 2x^2$

b) $y = ax^2$
 $-4 = a \cdot 2^2$
 $-4 = 4a$
 $a = -1$
 $y = -x^2$

c) $2 = a \cdot (-2)^2$
 $2 = 4a$
 $a = \frac{2}{4} = \frac{1}{2}$
 $y = \frac{1}{2}x^2$

d) $2,25 = a(-3)^2$
 $2,25 = 9a$
 $a = \frac{2,25}{9} = \frac{1}{4}$
 $y = \frac{1}{4}x^2$

100/4b)

Graf na obrázku prochází body $[0; 0]; [3; 3]$

$y = ax^2$
 $3 = a \cdot 3^2 = 9a$
 $a = \frac{3}{9} = \frac{1}{3} \Rightarrow y = \frac{1}{3}x^2$