## **Quadratics inequalities**

Name - \_

Start time - \_ \_ : \_ \_

End time - \_ \_ : \_ \_

## Solve the following.

Solve each quadratic inequality, giving your solution using set notation.

a) 
$$x^2 < \frac{1}{4}$$

b) 
$$x^2 > \frac{1}{36}$$

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c)  $x^2 \le \frac{1}{121}$ 

d) 
$$x^2 \ge \frac{1}{25}$$

e) 
$$x^2 < \frac{4}{9}$$

e) 
$$x^2 < \frac{\frac{25}{9}}{\frac{25}{49}}$$
  
f)  $x^2 \ge \frac{\frac{25}{49}}{\frac{49}{9}}$ 

g) 
$$x^2 \le \frac{9}{16}$$

h) 
$$x^2 < \frac{16}{169}$$

Solve each quadratic inequality and show the solution on a number line.

a) 
$$x^2 + 20 < 9x$$

b) 
$$x^2 < 6x + 27$$

Solve each quadratic inequality, giving your solution using set notation.

a) 
$$x^2 - 4x > 0$$

b) 
$$x^2 > 12x$$

c) 
$$x^2 + 3x \le 0$$

d) 
$$x^2 \le 2x$$

e) 
$$x^2 - 5x < 0$$

f) 
$$x^2 \ge 9x$$

g) 
$$x^2 + 18 \le 9x$$