

Resolver las ecuaciones con radicales:

$$1) \sqrt{x+4} - 4 = 4$$

$$(\sqrt{x+4})^2 = (4+4)^2$$

$$x+4 = 8^2 - 8x + 16$$

$$0 = x^2 - 9x + 20$$

$$(x-4)(x-5)$$

$$x-4=0 \quad x-5=0$$

$$x=5 \text{ no}$$

$$2) \sqrt{2x+3} - \sqrt{x-2} = 2$$

$$\sqrt{2x+3} = 2 + \sqrt{x-2}$$

$$(\sqrt{2x+3})^2 = (2 + \sqrt{x-2})^2$$

$$2x+3 = 4 + 4\sqrt{x-2} + x-2$$

$$2x+3-4-x+2 = 4\sqrt{x-2}$$

$$(x-1)^2 = (4\sqrt{x-2})^2$$

$$x^2+x+1 = 16(x-2)$$

$$x^2+x+1 = 16x-32$$

$$x^2-15x+33=0$$

$$(x-11)(x-3)=0$$

$$x-11=0 \quad x-3=0$$

$$\bullet x-5 = \sqrt{x-3}$$

$$(x-5)^2 = (\sqrt{x-3})^2$$

$$x^2-10x+25 = x-3$$

$$x^2-11x+28=0$$

$$(x-7)(x-4)=0$$

$$x=4 \text{ no}$$

$$\bullet \text{ } 2x + 5 + x + 2 = 5$$

$$(2x + 5)^2 = (10 - x + 2)^2$$

$$2x + 5 = x + 2 + x + 27$$

$$(x - 22)^2 = (x + 2)^2$$

$$x^2 - 44x + 484 = 100(x + 2)$$

$$x^2 - 44x + 484 = 100x + 200$$

$$x^2 - 44x + 484 - 100x - 200 = 0$$

$$x^2 - 144x + 284 = 0$$

$$(x - 142)(x - 2) = 0$$

$$x - 142 = 0 \quad x - 2 = 0$$

$$x = 142 \text{ no}$$

$$x = 4$$

$$x = 11$$

$$x = 3$$

$$x = 7$$

$$x = 2$$