

Solve over the real numbers:

1.  $x^{\frac{-2}{3}} + 15 = 24$

2.  $2x = 5\sqrt{x} - 2$

3.  $\sqrt{x-5} + 7 = x$

4.  $\sqrt{x+4} + \sqrt{x} = 3$

5.  $\sqrt{3x+3} - \sqrt{x+5} = 2$

6.  $2\sqrt[3]{x} = \sqrt[6]{x^5}$

7.  $4x^{\frac{-3}{2}} = 32$

8.  $3x = \sqrt{7-x} - 3$

9.  $\sqrt{3x-2} - \sqrt{2x-3} = 1$

10.  $\sqrt{x+2} - \sqrt{x-2} = \sqrt{2x}$

Answers: 1.  $1/27$  2.  $1/4, 4$  3. 9 4.  $25/36$  5. 11 6. 0, 4 7.  $1/4$   
 8.  $-1/9$  9. 6, 2 10. 2

