

Algebra 2 CC
Solving Exponential Equations HW

Name _____

Algebraically, solve for x .

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

2.) $\sqrt[4]{2x-13} = -9$

3.) The speed of object A is given by $A(x) = \sqrt{3x+16}$, where x measures time in seconds.

The speed of object B is given by $B(x) = x+2$. At what time do the two objects have the same speed?

Algebraically, solve for x .

4.) $x^{\frac{1}{4}} = 3$

5.) $x^{\frac{5}{3}} = 32$

6.) Given the equal terms $\sqrt[3]{x^2}$ and $y^{\frac{1}{5}}$, determine and state y , in terms of x .

7.) Given the equal terms $a^{\frac{4}{3}}$ and $b^{\frac{5}{3}}$, determine and state b , in terms of a .