MAth on the Fly!

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NAME:	DATE:	

Solving Exponential Equations

Solve each equation.

$$\boxed{1.} \quad 11^{3x-11} = 11$$

$$2. \quad 5^{x-5} = 25$$

$$3. \quad 4^{5x+7} = 16^{x-1}$$

$$\boxed{4.}$$
 $13^{x^2} = 13^{3x}$

$$5. 9^{x+4} = 27^{x-3}$$

$$6.$$
 $8^x = 32^{x+4}$

$$7 \cdot 7^{-3} \cdot 7^{-4} = 7^{6x}$$

$$8. \quad \frac{6^{8x}}{6^3} = 6^{6x} \cdot 6^5$$

SOLUTIONS

$$\boxed{1.} \quad x = 4$$

$$2.$$
 $x = 7$

$$\boxed{3.} \quad x = -3$$

$$4 \cdot x = 0, x = 3$$

$$5. x = 17$$

$$6. x = -10$$

$$7.$$
 $x = -1$

$$8. \quad x = 4$$