

Name: _____

M\$3A Homework 43

<p>1. Solve by factoring: $3x = \frac{8}{x} - 10$</p>	<p>4. Solve by completing the square. Express answers in simplest form. $3x^2 + 6x = 2$</p>
<p>2. Solve by using the quadratic formula. Express answers in simplest form. $11x = 5x^2 + 2$</p>	<p>5. Solve for all values of a that satisfy the equation</p> $\frac{2}{a^2 - 7a + 10} = \frac{3}{a - 5} - \frac{a}{a - 2}$
<p>3. Solve by using the quadratic formula: $23x^2 - 2 = 4x^2 + 4$</p>	<p>6. Solve for all values of x: $7x^3 + x^2 = 26x$</p>

7. Sam drove 140 miles in $\frac{1}{2}$ hour less time than it took Tom to drive 176 miles. Sam's rate was 4 miles per hour less than Tom's rate. Find the rate of each.

8. A frame for a picture is 2 inches wide. The picture inside the frame is 4 inches longer than it is wide. If the area of the picture is 320 square inches, find the outside dimensions of the picture frame.

9. If Sid and Ted work together, they can paint a fence in 4 hours. If they work alone, Sid needs 6 hours more than Ted to paint the fence. How many hours would each boy working alone need to complete the job?