

Name: _____

M\$3A Classwork 4

1. Solve by completing the square: $x^2 + 8x + 13 = 0$

3. Solve by completing the square: $4x^2 - 16x = 10$

2. Solve by completing the square: $3x^2 + 9x + 1 = 0$

4. Solve by completing the square: $-5x^2 - 5x + 9 = 0$

5. Your home is built on a square lot. To add more space to your yard, you purchase an additional 4 feet along the side of the property. The area of the lot is now 9600 square feet. What are the dimensions of the new lot?

6. At noon a cargo plane leaves McHare Airport and heads east at 180 mi/h. Its destination is Jamesville, 500 mi away. At 1:00 p.m. a jet takes off from McHare and flies east after the cargo plane at 450 mi/h. At what time will the jet overtake the cargo plane?

7. Tim paddled his kayak 12 km upstream against a 3 km/hr current and back again in 5 hours and 20 minutes. In that time how far could have paddled in still water?

8. A rectangular animal pen with area 1200 square meters has one side along a barn. The other three sides are enclosed by 100 m of fencing. Find the dimensions of the pen.

9. A sidewalk of uniform width has area 180 square feet and surrounds a flower bed that is 11 ft wide and 13 ft long. Find the width of the sidewalk.