MATH 202 **Name:**_____

In class work 8 **Row:**_____

"To pay attention, this is our endless and proper work." MARY OLIVER

1. For each of the following second degree polynomials, apply the CTS (complete the square) algorithm.

[1] (a) $x^2 + 7x + 28$

[1] (b) $x^2 + 2\sqrt{2}x - 1$

[1] (c) $2x^2 + 8x$

2. Find each antiderivative.

[1] (a) $\displaystyle\int \frac{1}{\sqrt{x^2+7x+28}}\,\mathrm{d}x$

[1] (b) $\displaystyle\int \frac{1}{\sqrt{x^2+2\sqrt{2}x-1}}\,\mathrm{d}x$

1 (c) $\displaystyle\int \frac{1}{2x^2+8x}\,\mathrm{d}x$