

**Classwork 4**  
Precalculus MTH 130  
Instructor: Abhijit Champanerkar

Name: \_\_\_\_\_

**1.** Factor the following polynomials:

(1)  $P(x) = x^3 - 3x^2 - 18x$

(2)  $P(x) = x^4 + 4x^3 - 12x^2$

□

**2.** Sketch the graph of the polynomial  $P(x) = (x + 1)(x - 1)^2(x - 3)$  using end behaviour and roots. □

