Unit 3 Review

Topics for the unit include:

- Finding derivatives from first principles
- Differentiation:
  - Power, constant and sum rules
  - Product rule
  - Power of a function rule
  - Quotient rule
- Finding equations of tangent and normal lines
- One of the following derivations: power rule, product rule or quotient rule.
- Applications of the derivative (velocity, acceleration, etc.)

Review Questions:

1. Text page 54 #9abch (using 1st principles)
2. Text page 98 #1, 2, 3a, 4bcghj, 7, 8, 9, 15
3. Text page 87 #5bc
4. Problem #1 from page 65
5. Find equations of tangents from (3, 0) to $y = x^2 - x + 3$.
   (**Answer**: $y = -x + 3$ and $y = 11x - 33$)

6. Text page 159 #9, 10
7. Text page 222 #6