

Due date: \_\_\_\_\_

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

## Getting Ready for Derivatives (Part 3)

Notesex: Solve  $x^3 - x^2 - 9x + 9 > 0$ .

1. Solve the following inequalities.

a)  $x^2 + 2x - 3 < 0$

b)  $(x + 1)(x + 3)(x - 2)^2 \geq 0$

**Notes**

Recall the following formulas:

Volume of a sphere with radius  $r$ : \_\_\_\_\_

Surface area of a sphere with radius  $r$ : \_\_\_\_\_

**Practice at home**

2. Solve the following inequalities.

a)  $2x^2 - x - 6 \leq 0$

b)  $3x^2 + 7x - 6 > 0$

c)  $x^3 - 3x^2 - 4x + 12 < 0$

d)  $(x - 1)^2(2x - 3)(x + 2)^3 \geq 0$