PreCalc Homework #1

Note Title 8/31/2009

① Find the LCD of 18 and 72. Then compute

$$\frac{5}{18} + \frac{11}{72}$$

② Simplify the following expressions:

a) $\dfrac{x^3 y^{-2}}{x^{-2} y^3}$ b) $\dfrac{\sqrt{x} \cdot x^5}{\sqrt[3]{x^2}}$

c) $\sqrt[3]{\dfrac{x^9 y^6}{x^{-3}}}$ d) $\sqrt[3]{\sqrt{x^5}}$

③ Review the 3 binomial formulas

④ Factor the following expressions:

a) $9x^3 - 3x^2$ b) $x^2 - 9$

c) $x^2 - 5x + 6$ d) $x^2 - 6x + 9$

e) $x^4 - x^2 - 9x^2 + 9$ f) $x^{3/2} - 5x^{1/2} - 6x^{-1/2}$