

6) Racionaliza :

$$a) \frac{2}{\sqrt{3}} = \frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

$$b) \frac{6}{\sqrt[3]{7}} = \frac{6}{\sqrt[3]{7}} \cdot \frac{\sqrt[3]{7^2}}{\sqrt[3]{7^2}} = \frac{6\sqrt[3]{7^2}}{7} = \frac{6\sqrt[3]{49}}{7}$$

$$c) \frac{\sqrt{8b^5}}{\sqrt{64b^3}} = \frac{\sqrt{2^3 b^5}}{\sqrt{2^6 b^3}} = \frac{\cancel{2} b^2 \sqrt{2b}}{\cancel{2^3} b \sqrt{b}} = \frac{b \sqrt{2b}}{2^2 \sqrt{b}} \cdot \frac{\sqrt{b}}{\sqrt{b}} = \frac{\cancel{b} \sqrt{2b \cdot b}}{4 \cdot \cancel{b}} = \frac{b\sqrt{2}}{4}$$

$$d) \frac{\sqrt{5}}{3-\sqrt{3}} = \frac{\sqrt{5}}{3-\sqrt{3}} \cdot \frac{3+\sqrt{3}}{3+\sqrt{3}} = \frac{\sqrt{5} \cdot (3+\sqrt{3})}{3^2 - (\sqrt{3})^2} = \frac{3\sqrt{5} + \sqrt{3} \cdot \sqrt{5}}{9-3} =$$

$$= \frac{3\sqrt{5} + \sqrt{15}}{6}$$

$$e) \frac{2}{-1+\sqrt{3}} = \frac{2}{-1+\sqrt{3}} \cdot \frac{-1-\sqrt{3}}{-1-\sqrt{3}} = \frac{2 \cdot (-1-\sqrt{3})}{(-1)^2 - (\sqrt{3})^2} = \frac{-2-2\sqrt{3}}{1-3} =$$

$$= \frac{-2-2\sqrt{3}}{-2} = \frac{-2}{-2} + \frac{-2\sqrt{3}}{-2} = 1 + \sqrt{3}$$

$$f) \frac{3\sqrt{6}}{\sqrt{5}+\sqrt{2}} = \frac{3\sqrt{6}}{\sqrt{5}+\sqrt{2}} \cdot \frac{-\sqrt{5}-\sqrt{2}}{-\sqrt{5}-\sqrt{2}} = \frac{3\sqrt{6} \cdot (-\sqrt{5}-\sqrt{2})}{(-\sqrt{5})^2 - (\sqrt{2})^2} = \frac{-3\sqrt{6}\sqrt{5} - 3\sqrt{6}\sqrt{2}}{5-2} =$$

$$= \frac{-3\sqrt{6 \cdot 5} - 3\sqrt{6 \cdot 2}}{3} = \frac{-3\sqrt{30} - 3\sqrt{12}}{3} = \frac{-\cancel{3}\sqrt{30}}{\cancel{3}} + \frac{-\cancel{3}\sqrt{12}}{\cancel{3}} =$$

$$= -\sqrt{30} - \sqrt{12}$$