Read each problem very carefully before starting to solve it. Each problem is worth 5 points. It is necessary to show all your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Operate and simplify:
(a) $\sqrt[3]{54 x^{4} y^{3}}-\sqrt[3]{16 x^{4} y^{3}}=$
(b) $(2 \sqrt{6}-3)(2 \sqrt{6}+4)=$
2. Operate and simplify:
(a) $\sqrt{\frac{a^{3}}{b^{7}}}=$
(b) $\frac{5}{\sqrt{7}-2}=$
