1. Simplify each. Use absolute value symbols when necessary.

a) $\sqrt[2]{54m^{18}n^{12}p^{23}}$

b) $\sqrt[5]{g^{14}h^{27}j^{43}}$

2. Simplify.

$$\sqrt{32} + \sqrt{108} - \sqrt{98} + \sqrt{75}$$

3. Rationalize each denominator. Simplify answer.

a) $\dfrac{18}{\sqrt[3]{2a^2b^7}}$

b) $\dfrac{15}{\sqrt[4]{3x^5y^{19}}}$

c) $\dfrac{7}{5 - \sqrt{11}}$

4. Solve this radical equation:

$$\sqrt{5x + 21} - 3 = x$$