

1. Simplify by combining like radical terms, if possible:

a) $8\sqrt{17} - 5\sqrt{19} - 6\sqrt{17} + 4\sqrt{19} =$

b) $6\sqrt{7} - \sqrt[3]{x} + 2\sqrt{7} + 5\sqrt[3]{x} =$

2. Simplify. Assume any variables are positive.

a) $5\sqrt{12} + \sqrt{75} =$

b) $8\sqrt{45x^3} + \sqrt{5x} =$

c) $\sqrt[3]{81x^4} - \sqrt[3]{24x} =$

d) $\sqrt{\frac{19}{25}} =$

e) $\sqrt{\frac{50x^3}{81y^8}} =$

f) $\sqrt[4]{\frac{13y^7}{x^{12}}} =$

3. Simplify, if possible. Assume any variables are positive.

a) $\frac{\sqrt{200}}{\sqrt{10}} =$

b) $\frac{\sqrt{x^7 y^6}}{\sqrt{x^3 y^2}} =$

c) $\sqrt{\frac{54a^7 b^{11}}{3a^{-4} b^{-2}}} =$

d) $\frac{\sqrt[3]{250x^5 y^3}}{\sqrt[3]{2x^3}} =$

e) $\frac{\sqrt[3]{x^2+7x+12}}{\sqrt[3]{x+3}} =$

Q: When can you add two to eleven and get one as the correct answer?