

Math 2 Unit 3.3 & 3.4 Practice Quiz

Simplify.

1) $\frac{-4 + 3\sqrt{5}}{4\sqrt{19}}$

2) $\frac{4\sqrt{3ab^3}}{5\sqrt{5a^2b^4}}$

3) $\frac{3\sqrt{8b}}{3\sqrt{20b^2}}$

4) $\frac{-3m + 3\sqrt{m}}{2\sqrt{6m^2}}$

5) $\frac{3x^3 + 5\sqrt{3x^4}}{3\sqrt{20x}}$

6) $\frac{2\sqrt[6]{5x^2y}}{2\sqrt[6]{243x^2y^3}}$

$$7) \frac{5\sqrt[3]{5ab^2}}{2\sqrt[3]{4a^3b}}$$

$$8) \frac{2}{-4 - 3\sqrt{3}}$$

$$9) \frac{5 + 4\sqrt{5}}{-5 - 4\sqrt{3}}$$

$$10) \frac{4 - 3\sqrt{2}}{2\sqrt{2} - 2\sqrt{5}}$$

$$11) \frac{4}{2\sqrt{2k^2} + 4\sqrt{k^4}}$$

$$12) \frac{3r + 3\sqrt{r^3}}{5r + 3\sqrt{3r^4}}$$

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Simplify.

1)
$$\frac{-4 + 3\sqrt{5}}{4\sqrt{19}}$$

$$\frac{-4\sqrt{19} + 3\sqrt{95}}{76}$$

2)
$$\frac{4\sqrt{3ab^3}}{5\sqrt{5a^2b^4}}$$

$$\frac{4\sqrt{15ab}}{25ab}$$

3)
$$\frac{3\sqrt{8b}}{3\sqrt{20b^2}}$$

$$\frac{\sqrt{10b}}{5b}$$

4)
$$\frac{-3m + 3\sqrt{m}}{2\sqrt{6m^2}}$$

$$\frac{-m\sqrt{6} + \sqrt{6m}}{4m}$$

5)
$$\frac{3x^3 + 5\sqrt{3x^4}}{3\sqrt{20x}}$$

$$\frac{3x^2\sqrt{5x} + 5x\sqrt{15x}}{30}$$

6)
$$\frac{2\sqrt[6]{5x^2y}}{2\sqrt[6]{243x^2y^3}}$$

$$\frac{\sqrt[6]{15y^4}}{3y}$$

$$7) \frac{5\sqrt[3]{5ab^2}}{2\sqrt[3]{4a^3b}}$$

$$\frac{5\sqrt[3]{10ba}}{4a}$$

$$8) \frac{2}{-4 - 3\sqrt{3}}$$

$$\frac{8 - 6\sqrt{3}}{11}$$

$$9) \frac{5 + 4\sqrt{5}}{-5 - 4\sqrt{3}}$$

$$\frac{25 - 20\sqrt{3} + 20\sqrt{5} - 16\sqrt{15}}{23}$$

$$10) \frac{4 - 3\sqrt{2}}{2\sqrt{2} - 2\sqrt{5}}$$

$$\frac{-4\sqrt{2} - 4\sqrt{5} + 6 + 3\sqrt{10}}{6}$$

$$11) \frac{4}{2\sqrt{2k^2} + 4\sqrt{k^4}}$$

$$\frac{\sqrt{2} - 2k}{k - 2k^3}$$

$$12) \frac{3r + 3\sqrt{r^3}}{5r + 3\sqrt{3r^4}}$$

$$\frac{15 - 9r\sqrt{3} + 15\sqrt{r} - 9r\sqrt{3r}}{25 - 27r^2}$$