

MATH 60/GRACEY
WORKSHEET/9.6

Name _____

Rationalize the denominator. Assume that all variables represent positive real numbers.

1) $\frac{7}{\sqrt{15}}$

2) $\frac{9}{\sqrt{7}}$

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

$$4) \frac{\sqrt{121}}{\sqrt{7}}$$

$$5) \frac{\sqrt{2}}{\sqrt{5}}$$

$$6) \frac{5}{\sqrt{x^3}}$$

$$7) \sqrt[3]{\frac{5}{9x^2}}$$

$$8) \frac{7x}{\sqrt[5]{25x^{18}y^{22}}}$$

$$9) \sqrt[4]{\frac{625}{49x^{11}}}$$

Rationalize the denominator and simplify. Assume that all variables represent positive real numbers.

$$10) \frac{\sqrt{2}}{\sqrt{5+3}}$$

$$11) \frac{8}{9-\sqrt{10}}$$

$$12) \frac{2}{\sqrt{5} + \sqrt{7}}$$

$$13) \frac{\sqrt{2} - \sqrt{3}}{\sqrt{2} + \sqrt{3}}$$

$$14) \frac{x - 36}{\sqrt{x} - 6}$$

$$15) \frac{4\sqrt{7} + \sqrt{14}}{4\sqrt{7} - \sqrt{14}}$$

$$16) \frac{\sqrt{5} + 1}{2 + \sqrt{2}}$$

Rationalize the denominator. Assume that all variables represent positive real numbers.

$$17) \frac{5}{\sqrt[3]{y}}$$