

Rationalizing Denominators

Name _____

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Date _____

Simplify.

1) $\frac{6\sqrt{48}}{5\sqrt{42}}$

2) $-\frac{8}{\sqrt{7}}$

3) $\frac{\sqrt{32}}{5\sqrt{12}}$

4) $\frac{\sqrt{56}}{\sqrt{40}}$

5) $\frac{-1 + 2\sqrt{7}}{10\sqrt{10} - \sqrt{6}}$

6) $\frac{8}{\sqrt{2}}$

7) $\frac{\sqrt{36}}{\sqrt{20}}$

8) $\frac{10 + 7\sqrt{2}}{9 + \sqrt{2}}$

$$9) \frac{9i}{2+4i}$$

$$10) \frac{4i}{2+8i}$$

$$11) \frac{-2-9i}{-2-8i}$$

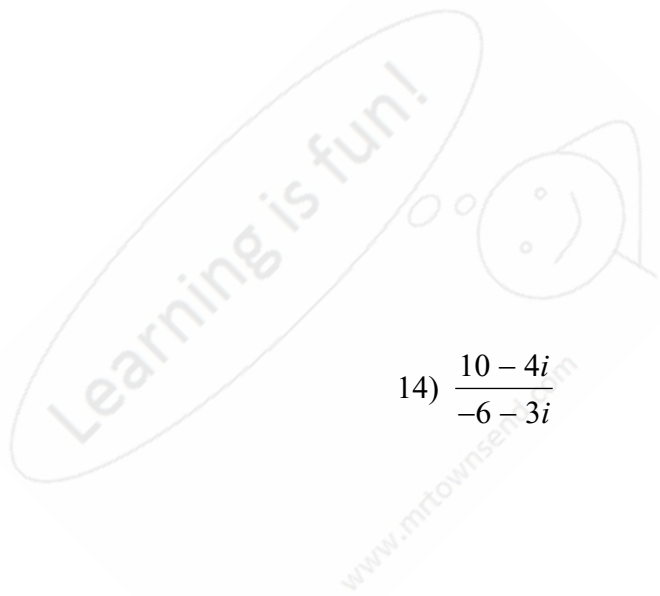
$$12) \frac{10i}{-10-8i}$$

$$13) \frac{2}{2+4i}$$

$$14) \frac{10-4i}{-6-3i}$$

$$15) \frac{3}{5-9i}$$

$$16) \frac{-4-4i}{7+9i}$$



Answers to Rationalizing Denominators

$$1) \frac{12\sqrt{14}}{35}$$

$$2) -\frac{8\sqrt{7}}{7}$$

$$3) \frac{2\sqrt{6}}{15}$$

$$4) \frac{\sqrt{35}}{5}$$

$$5) \frac{-10\sqrt{10} - \sqrt{6} + 20\sqrt{70} + 2\sqrt{42}}{994}$$

$$6) 4\sqrt{2}$$

$$7) \frac{3\sqrt{5}}{5}$$

$$8) \frac{76 + 53\sqrt{2}}{79}$$

$$9) \frac{9i + 18}{10}$$

$$10) \frac{2i + 8}{17}$$

$$11) \frac{38 + i}{34}$$

$$12) \frac{-25i - 20}{41}$$

$$13) \frac{1 - 2i}{5}$$

$$14) \frac{-16 + 18i}{15}$$

$$15) \frac{15 + 27i}{106}$$

$$16) \frac{-32 + 4i}{65}$$

