

# Rationalizing the Denominator (1.1)

## Today's Target

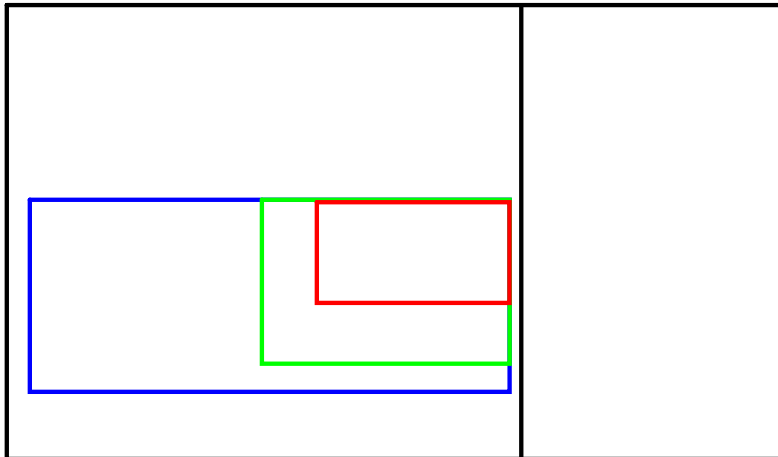


"I can rationalize a denominator (or numerator) that contain radicals."

### Recall:

#### **Number system**

A **number system** is a set of numbers that have certain properties.



Main number systems

<b>Real</b>	$R$
<b>Rational</b>	$Q$
<b>Irrational</b>	$\overline{Q}$
<b>Integer</b>	$I$ or $Z$
<b>Whole</b>	$W$
<b>Natural</b>	$N$

### conjugate

The **conjugate** of  $\sqrt{a} + \sqrt{b}$  is  $\sqrt{a} - \sqrt{b}$ , and vice versa.

### Practice

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### Example

Rationalize the denominator and express in simplified-factored form:

a)  $\frac{\sqrt{7}\sqrt{3}}{2\sqrt{5}\sqrt{7}}$

b)  $\frac{\sqrt{6} - \sqrt{2}}{\sqrt{6} + \sqrt{2}}$

Express all final answers in simplified-factored form, even if the question does not expect it.