

Student ID		

Last Name: \_\_\_\_\_

First Name: \_\_\_\_\_

Show all your work.  
If necessary, use extra sheets.

When appropriate,  
**BOX** your final answer.

M\$5  
Homework

# 18

1. Simplify:  $\sqrt{63} - \sqrt{28}$

2. Simplify:  $\sqrt{160} - \sqrt{40} + \sqrt{90}$

3. Simplify:  $4\sqrt{27} - 6\sqrt{\frac{3}{4}} + 8\sqrt{48}$

4. Simplify:  $\frac{\sqrt{50} - \sqrt{8}}{4\sqrt{2}}$

5. Simplify:  $(9 - \sqrt{2})(7 + \sqrt{2})$

6. When two resistors are connected in a parallel circuit, the total resistance is  $\frac{1}{\frac{1}{R_1} + \frac{1}{R_2}}$ . This complex fraction is equivalent to

*Show your work.*

(1)  $R_1 + R_2$

(3)  $R_1 R_2$

(2)  $\frac{R_1 + R_2}{R_1 R_2}$

(4)  $\frac{R_1 R_2}{R_1 + R_2}$