

Obj: Write & manipulate inverse functions

Simplifying radicals

x. a.  $\sqrt{3}(4+5\sqrt{3})$   
 $4\sqrt{3} + 5\sqrt{9}$   
 $4\sqrt{3} + 5 \cdot 3$   
 $4\sqrt{3} + 15$

b.  $6\sqrt{11}(2-\sqrt{11})$   
 $12\sqrt{11} - 6\sqrt{121}$   
 $12\sqrt{11} - 6 \cdot 11$   
 $12\sqrt{11} - 66$

c.  $5\sqrt{7}(3\sqrt{7}+4)$   
 $15\sqrt{49} + 20\sqrt{7}$   
 $15 \cdot 7 + 20\sqrt{7}$   
 $105 + 20\sqrt{7}$

a.  $\frac{\sqrt{50}}{5\sqrt{2}}$   
 $\frac{\sqrt{25 \cdot 2}}{5\sqrt{2}}$

b.  $\frac{\sqrt{108}}{6\sqrt{3}}$   
 $\frac{\sqrt{36 \cdot 3}}{6\sqrt{3}}$

c.  $\frac{\sqrt{75}}{5\sqrt{3}}$   
 $\frac{\sqrt{25 \cdot 3}}{5\sqrt{3}}$

d.  $\frac{\sqrt{245}}{7\sqrt{5}}$   
 $\frac{\sqrt{49 \cdot 5}}{7\sqrt{5}}$

$4 \cdot 27$   
 $9 \cdot 12$   
 $36 \cdot 3$

e.  $(1-7\sqrt{2})(1-\sqrt{2})$

f.  $(3+2\sqrt{13})(3-2\sqrt{13})$

$$1 - 1\sqrt{2} - 7\sqrt{2} + 7\sqrt{4}$$

$$1 - 8\sqrt{2} + 14$$

$$15 - 8\sqrt{2}$$

$$9 - 6\sqrt{13} + 6\sqrt{13} - 4\sqrt{169}$$

$$9 - 4 \cdot 13$$

$$9 - 52$$

$$-43$$