

AA PREP: OPERATIONS WITH RADICALS (SIMPLIFYING)—WORKSHEET #2

Simplify each radical.

1)  $\sqrt{36}$      6

$\sqrt{6 \cdot 6}$

2)  $\sqrt{81}$      9

$\sqrt{9 \cdot 9}$

3)  $\sqrt{28}$       $2\sqrt{7}$

$\sqrt{4 \cdot 7}$   
 $\sqrt{2 \cdot 2 \cdot 7}$

4)  $\sqrt{8}$       $2\sqrt{2}$

$\sqrt{4 \cdot 2}$   
 $\sqrt{2 \cdot 2 \cdot 2}$

5)  $\sqrt{90}$       $3\sqrt{2 \cdot 5}$   
                   $3\sqrt{10}$

$\sqrt{9 \cdot 10}$   
 $\sqrt{3 \cdot 3 \cdot 2 \cdot 5}$

6)  $\sqrt{126}$       $3\sqrt{2 \cdot 7}$   
                   $3\sqrt{14}$

$\sqrt{2 \cdot 63}$   
 $\sqrt{3 \cdot 7 \cdot 3 \cdot 3}$

7)  $\sqrt{98}$       $7\sqrt{2}$

$\sqrt{49 \cdot 2}$   
 $\sqrt{7 \cdot 7 \cdot 2}$

8)  $\sqrt{400}$       $2 \cdot 10$   
                  20

$\sqrt{4 \cdot 100}$   
 $\sqrt{2 \cdot 2 \cdot 10 \cdot 10}$

9)  $-3\sqrt{50}$       $-3 \cdot 5\sqrt{2}$   
                   $-15\sqrt{2}$

$\sqrt{25 \cdot 2}$   
 $\sqrt{5 \cdot 5 \cdot 2}$

10)  $7\sqrt{32}$       $7 \cdot 4\sqrt{2}$   
                   $28\sqrt{2}$

$\sqrt{16 \cdot 2}$   
 $\sqrt{4 \cdot 4 \cdot 2}$