

# Simplifying Radicals

$$\sqrt{16} = 4 \quad \sqrt{12} = \sqrt{6 \cdot 2} = \sqrt{6} \sqrt{2} \quad \times$$

$$\sqrt{12} = \sqrt{4} \sqrt{3} = 2\sqrt{3}$$

$$\textcircled{2} \quad \sqrt{50} = \sqrt{25} \sqrt{2} = 5\sqrt{2}$$

$$\textcircled{3} \quad \sqrt{63x^5} = \sqrt{63} \sqrt{x^5}$$

$$\sqrt{9} \sqrt{7} \quad \sqrt{x^4} \sqrt{x^1}$$

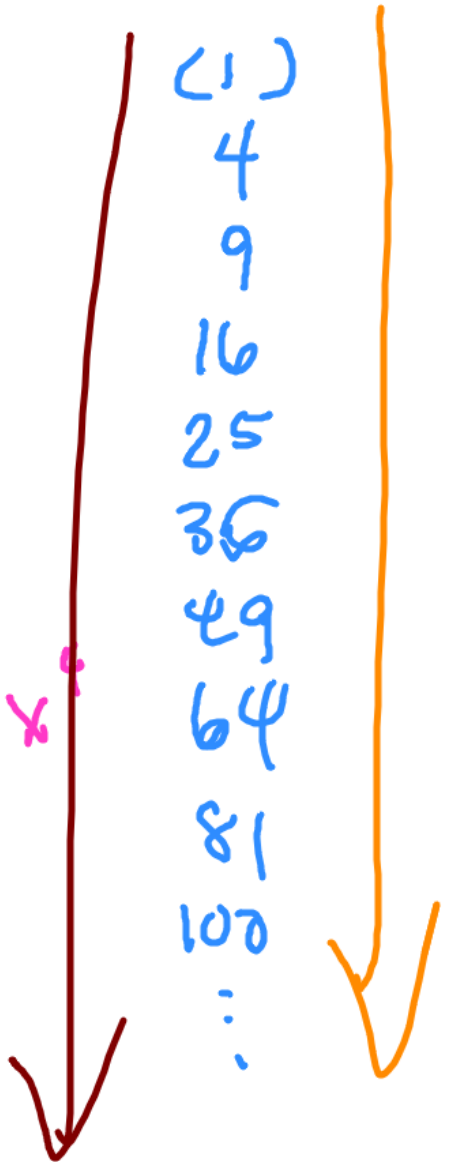
$$3\sqrt{7} \cdot x^2 \sqrt{x}$$

$$3x^2 \sqrt{7x}$$

$$\sqrt{x^4} = x^2$$

$$(x^2)^2 = x^2 \cdot x^2 = x^4$$

- (1)  
4  
9  
16  
25  
36  
49  
64  
81  
100  
⋮



④  $\sqrt{5} \cdot 2\sqrt{5} = 2\sqrt{5\sqrt{5}} = 2\sqrt{5 \cdot 5} = 2\sqrt{25} = 2 \cdot 5 = 10$

⑤  $\sqrt{7x} \cdot 3\sqrt{10x^7}$

$= 3\sqrt{7x} \sqrt{10x^7}$

$3\sqrt{70} \sqrt{x^8}$

$(x^{\frac{8}{2}})^2 = x^8$

$3\sqrt{70} x^4$

$3x^4\sqrt{70}$

V #5 p 373 7-12, 16-19, 27-48 ( $\times 3$ )  
27, 30, 33, ...

W #6 KUTA Radicals - answers included!

Th #7 DO NOW pg 1 2-20 even