

Radicals	Mixed to Entire	Entire to Mixed									
$A^n\sqrt{x}$	$x\sqrt{3} = \sqrt{(x)(x)(x)(3)} = \sqrt{3x^2}$ ${}^3\sqrt{4x} = {}^3\sqrt{(x)(x)(x)(4)(x)} =$ ${}^3\sqrt{4x}$	$\sqrt{50} = (\text{Factor tree}) \sqrt{(5)(5)(2)} =$ $5\sqrt{2}$ <hr/> $x\sqrt{18x^4y}$									
A = coefficient n = index $\sqrt{\quad}$ = radical x = radicand	<th>Entire to Mixed</th> <td> <math>\sqrt{50} = (\text{Factor tree}) \sqrt{(5)(5)(2)} =</math>  <math>5\sqrt{2}</math>  <math>x\sqrt{18^4} = (\text{Factor tree } [18 = \{2,9\}]</math>            Perfect square) = <math>x\sqrt{9\sqrt{2}\sqrt{x^4}\sqrt{y}} =</math>  <math>(3x)x^2\sqrt{2y} = 3x^2\sqrt{2y}</math>            Factor the radicand, so all            factors are outside and look for            perfect squares.  <hr/> <math>x\sqrt{18x^4y}</math> </td>	Entire to Mixed	$\sqrt{50} = (\text{Factor tree}) \sqrt{(5)(5)(2)} =$ $5\sqrt{2}$ $x\sqrt{18^4} = (\text{Factor tree } [18 = \{2,9\}]$ Perfect square) = $x\sqrt{9\sqrt{2}\sqrt{x^4}\sqrt{y}} =$ $(3x)x^2\sqrt{2y} = 3x^2\sqrt{2y}$ Factor the radicand, so all factors are outside and look for perfect squares. <hr/> $x\sqrt{18x^4y}$								
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