

Grade 8 Mathematics Item Specifications  
Florida Standards Assessments

Content Standard	<p><b>MAFS.8.EE Expressions and Equations</b></p> <p><b>MAFS.8.EE.1 Work with radicals and integer exponents.</b></p> <p><b>MAFS.8.EE.1.1</b> Know and apply the properties of integer exponents to generate equivalent numerical expressions. <i>For example, <math>3^2 \cdot 3^{-5} = 3^{-3} = \frac{1}{3^3} = \frac{1}{27}</math>.</i></p>	
Assessment Limits	<p>Exponents must be integers. Bases must be whole numbers. Variables may not be used.</p>	
Calculator	No	
Item Types	<p>Equation Editor GRID Matching Item Multiple Choice Multiselect</p>	
Context	No context	
Sample Item		Item Type
Which expression is equivalent to $\frac{1}{27}$ ?	<p>A. <math>3^1 \cdot 3^{-10}</math> B. <math>3^{-1} \cdot 3^{10}</math> C. <math>3^{-4} \cdot 3^7</math> D. <math>3^4 \cdot 3^{-7}</math></p>	Multiple Choice
Select all the expressions equivalent to $(4^3)^2 \cdot 4^2$ .	<p><input type="checkbox"/> <math>2^{14}</math> <input type="checkbox"/> <math>2^{16}</math> <input type="checkbox"/> <math>4^8</math> <input type="checkbox"/> <math>4^{12}</math> <input type="checkbox"/> <math>16^4</math> <input type="checkbox"/> <math>16^8</math></p>	Multiselect
Which expression is equivalent to $5^4 \cdot (5^{-3})^2$ ?	<p>A. <math>5^1</math> B. <math>5^2</math> C. <math>\left(\frac{1}{5}\right)^1</math> D. <math>\left(\frac{1}{5}\right)^2</math></p>	Multiple Choice
See Appendix for the practice test item aligned to this standard.		