



Name _____

Date _____

Learning Target: I will simplify numerical expressions with positive integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 1: Guided Practice (Whole Group)

Directions: Below are solved problems to simplify expressions with exponents. For each solution step, discuss what happened and fill in the missing information.

Write	Describe
<p>1.</p> $3^6 \times 3^2 = 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \times 3 \cdot 3$ $= 3^8$	<p>Changed to Repeated Multiplication $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 = \underline{\hspace{2cm}}$ and $3 \cdot 3 = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Changed Back to Exponential Form The exponent $\underline{\hspace{2cm}}$ represents 3 multiplied by itself $\underline{\hspace{2cm}}$ times.</p>
<p>2.</p> $\frac{5^6}{5^2} = \frac{5 \cdot 5 \cdot \cancel{5} \cdot \cancel{5} \cdot 5 \cdot 5}{\cancel{5} \cdot \cancel{5}}$ $= 5 \cdot 5 \cdot 5 \cdot 5$ $= 5^4$	<p>Changed to Repeated Multiplication $5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 = \underline{\hspace{2cm}}$ and $5 \cdot 5 = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Simplified Fractions When multiplying, ignore each $\frac{5}{5}$ because its value is $\underline{\hspace{2cm}}$.</p> <p>Changed Back to Exponential Form The exponent $\underline{\hspace{2cm}}$ represents 5 multiplied by itself $\underline{\hspace{2cm}}$ times.</p>
<p>3.</p> $(4^2)^5 = 4^2 \cdot 4^2 \cdot 4^2 \cdot 4^2 \cdot 4^2$ $= 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$ $= 4^{10}$	<p>Changed to Repeated Multiplication $4^2 \cdot 4^2 \cdot 4^2 \cdot 4^2 \cdot 4^2 = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Changed to Repeated Multiplication Each $4 \cdot 4 = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Changed Back to Exponential Form The exponent $\underline{\hspace{2cm}}$ represents 4 multiplied by itself $\underline{\hspace{2cm}}$ times.</p>



Name _____ Date _____

Learning Target: I will simplify numerical expressions with positive integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 1: Guided Practice (Pairs)

Directions: Complete the missing steps to simplify each expression in exponential form.

<p>4. $4^7 \times 4^3$</p> <p>$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \times 4 \cdot 4 \cdot 4$</p> <p>$4 \square$</p>	<p>5. $7^6 \cdot 7^3$</p> <p>$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot \underline{\hspace{2cm}}$</p> <p>$7 \square$</p>
<p>6. $\frac{9^6}{9^4}$</p> <p>$\frac{9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9}{\hspace{2cm}}$</p> <p>$9 \square$</p>	<p>7. $\frac{5^9}{5^3}$</p> <p>$\frac{\hspace{2cm}}{5 \cdot 5 \cdot 5}$</p> <p>$5 \square$</p>
<p>8. $(8^3)^4$</p> <p>$\underline{\hspace{4cm}}$</p> <p>$8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$</p> <p>$\underline{\hspace{2cm}}$</p>	<p>9. $(6^4)^2$</p> <p>$6^4 \cdot 6^4$</p> <p>$\underline{\hspace{4cm}}$</p> <p>$6 \square$</p>



Algebra 1 Quick Check – Form A

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $5^6 \times 5^4$ <p>5^{10} 5^{24} 25^{10} 10^{24}</p>	<p>2.</p> $4^3 \times 4^7$ <p>16^{10} 8^{21} 4^{10} 4^{21}</p>
<p>3.</p> $\frac{2^8}{2^4}$ <p>2^{-4} 2^4 1^2 1^4</p>	<p>4.</p> $\frac{8^3}{8^9}$ <p>1^6 1^{-3} 8^6 8^{-6}</p>
<p>5.</p> $(5^6)^2$ <p>5^8 5^4 5^{12} 5^3</p>	<p>6.</p> $(3^4)^8$ <p>3^4 3^{32} 3^{12} 3^2</p>



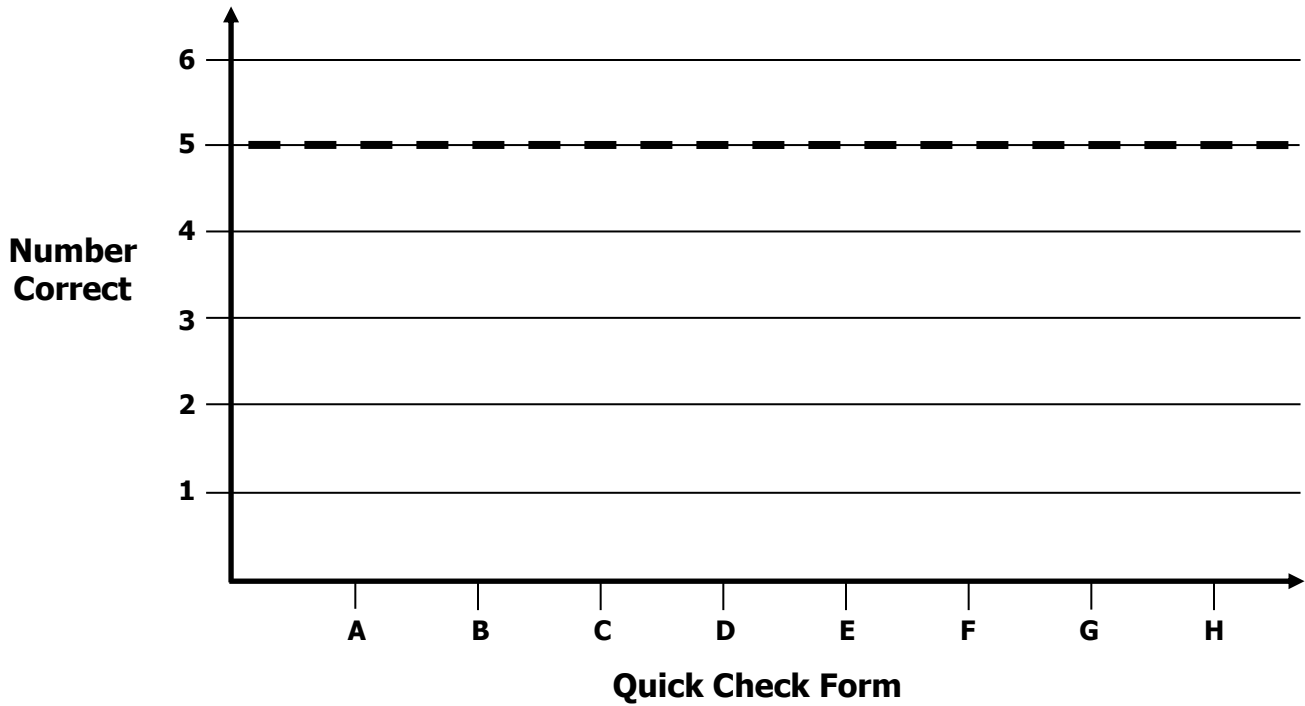
Algebra 1 Growth Chart

Readiness Standard 4 - 8.EE.1

Name _____

Learning Target: I will simplify numerical expressions with integer exponents.

Goal: 5 out of 6 correct



Intervention Notes	Date	Score



Name _____

Date _____

Learning Target: I will simplify numerical expressions with positive and negative integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 2: Guided Practice (Whole Group)

Directions: Below are solved problems to simplify expressions with exponents. For each solution step, discuss what happened and fill in the missing information.

Write	Describe
<p>1.</p> $3^6 \times 3^{-2} = \frac{3 \cdot 3 \cdot \cancel{3} \cdot \cancel{3} \cdot 3 \cdot 3}{\cancel{3} \cdot \cancel{3}}$ $= 3 \cdot 3 \cdot 3 \cdot 3$ $= 3^4$	<p>Changed to Repeated Multiplication $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 = \underline{\hspace{2cm}}$ and $\frac{1}{3 \cdot 3} = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Simplified Fractions When multiplying, ignore each $\frac{3}{3}$ because its value is $\underline{\hspace{2cm}}$.</p> <p>Changed Back to Exponential Form The exponent $\underline{\hspace{2cm}}$ represents 3 multiplied by itself $\underline{\hspace{2cm}}$ times.</p>
<p>2.</p> $\frac{4^2}{4^5} = \frac{\cancel{4} \cdot \cancel{4}}{\cancel{4} \cdot \cancel{4} \cdot 4 \cdot 4 \cdot 4}$ $= \frac{1}{4 \cdot 4 \cdot 4}$ $= 4^{-3}$	<p>Changed to Repeated Multiplication $4 \cdot 4 = \underline{\hspace{2cm}}$ and $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Simplified Fractions When multiplying, ignore each $\frac{4}{4}$ because its value is $\underline{\hspace{2cm}}$.</p> <p>Changed Back to Exponential Form The exponent $\underline{\hspace{2cm}}$ represents $\frac{1}{4}$ multiplied by itself $\underline{\hspace{2cm}}$ times.</p>
<p>3.</p> $(5^{-2})^3 = 5^{-2} \cdot 5^{-2} \cdot 5^{-2}$ $= \frac{1}{5 \cdot 5} \cdot \frac{1}{5 \cdot 5} \cdot \frac{1}{5 \cdot 5}$ $= 5^{-6}$	<p>Changed to Repeated Multiplication $5^{-2} \cdot 5^{-2} \cdot 5^{-2} = \underline{\hspace{2cm}}$ to see the total number of common bases.</p> <p>Changed Negative Exponents to Division Each $\frac{1}{5 \cdot 5} = \underline{\hspace{2cm}}$.</p> <p>Changed Back to Exponential Form The exponent $\underline{\hspace{2cm}}$ represents $\frac{1}{5}$ multiplied by itself $\underline{\hspace{2cm}}$ times.</p>



Name _____ Date _____

Learning Target: I will simplify numerical expressions with positive and negative integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 2: Guided Practice (Pairs)

Directions: Complete the missing steps to simplify each expression in exponential form.

<p>4. $4^7 \times 4^{-3}$</p> $\frac{4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4}{}$ <p>4^{\square}</p>	<p>5. $7^{-6} \cdot 7^2$</p> $\frac{}{7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7}$ <p>7^{\square}</p>
<p>6. $\frac{9^4}{9^7}$</p> $\frac{9 \cdot 9 \cdot 9 \cdot 9}{}$ <p>9^{\square}</p>	<p>7. $\frac{8^5}{8^5}$</p> $\frac{}{8 \cdot 8 \cdot 8 \cdot 8 \cdot 8}$ <p>8^{\square}</p>
<p>8. $(8^3)^4$</p> <p>_____</p> $8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$ <p>_____</p>	<p>9. $(6^{-4})^2$</p> $6^{-4} \cdot 6^{-4}$ $\frac{1}{} \cdot \frac{1}{}$ <p>6^{\square}</p>



Algebra 1 Quick Check – Form B

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $3^4 \times 3^2$ <p>3^8 3^6 6^8 9^6</p>	<p>2.</p> $7^3 \times 7^6$ <p>14^{18} 49^9 7^{18} 7^9</p>
<p>3.</p> $\frac{4^2}{4^6}$ <p>1^{-4} 4^4 1^{-3} 4^{-4}</p>	<p>4.</p> $\frac{9^8}{9^4}$ <p>9^4 9^{-4} 1^2 1^{-4}</p>
<p>5.</p> $(6^4)^2$ <p>6^6 6^8 6^2 6^{-2}</p>	<p>6.</p> $(2^3)^6$ <p>2^3 2^2 2^9 2^{18}</p>



Learning Target: I will simplify numerical expressions with integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 3: Guided Practice (Whole Group)

Directions: Below are solved problems to simplify expressions with exponents. For each solution step, discuss what happened and fill in the missing information.

<p>1. $4^5 \times 4^2 = 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \times 4 \cdot 4$ $= 4^7$</p> <p>2. $7^3 \cdot 7^5 = 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7$ $= 7^8$</p>	<p>Multiplying Powers Property (4^5, 4^2, 7^3 and 7^5 are called powers)</p> <p>To multiply powers with the same bases, _____ the exponents.</p> <p>$4^5 \cdot 4^2 = \underline{\hspace{2cm}} = 4^7$</p> <p>$7^3 \cdot 7^5 = \underline{\hspace{2cm}} = 7^8$</p>
<p>3. $\frac{5^6}{5^2} = \frac{\cancel{5} \cdot \cancel{5} \cdot 5 \cdot 5 \cdot 5 \cdot 5}{\cancel{5} \cdot \cancel{5}}$ $= 5^4$</p> <p>4. $\frac{8^3}{8^5} = \frac{\cancel{8} \cdot \cancel{8} \cdot 8}{\cancel{8} \cdot \cancel{8} \cdot 8 \cdot 8 \cdot 8}$ $= 8^{-2}$</p>	<p>Dividing Powers Property (5^6, 5^2, 8^3 and 8^5 are each called powers)</p> <p>To divide powers with the same bases, _____ the exponents.</p> <p>$\frac{5^6}{5^2} = \underline{\hspace{2cm}} = 5^4$</p> <p>$\frac{8^3}{8^5} = \underline{\hspace{2cm}} = 8^{-3}$</p>
<p>5. $(9^2)^3 = 9^2 \cdot 9^2 \cdot 9^2$ $= 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9$ $= 9^6$</p> <p>6. $(3^4)^2 = 3^4 \cdot 3^4$ $= 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$ $= 3^8$</p>	<p>Power of a Power Property (9^2 and 3^4 are called a powers)</p> <p>To find the power of a power, _____ the exponents.</p> <p>$(9^2)^3 = \underline{\hspace{2cm}} = 9^6$</p> <p>$(3^4)^2 = \underline{\hspace{2cm}} = 3^8$</p>



Name _____ Date _____

Learning Target: I will simplify numerical expressions with integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 3: Guided Practice (Pairs)

Directions: Complete the missing steps to simplify each expression in exponential form.

<p>7. $6^7 \times 6^{-3}$</p> $\frac{6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 \cdot 6}{}$ <p>6^{\square}</p> <p>Multiplying Powers Property:</p> $6^{\square} = 6^{\square}$	<p>8. $3^{-6} \cdot 3^2$</p> $\frac{}{3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3}$ <p>3^{\square}</p> <p>Multiplying Powers Property:</p> $3^{\square} = 3^{\square}$
<p>9. $\frac{5^4}{5^7}$</p> $\frac{5 \cdot 5 \cdot 5 \cdot 5}{}$ <p>5^{\square}</p> <p>Dividing Powers Property:</p> $5^{\square} = 5^{\square}$	<p>10. $\frac{8^4}{8^4}$</p> $\frac{}{8 \cdot 8 \cdot 8 \cdot 8}$ <p>8^{\square}</p> <p>Dividing Powers Property:</p> $8^{\square} = 8^{\square}$
<p>11. $(9^3)^4$</p> <p>Power of a Power Property:</p> $9^{\square} = 9^{\square}$	<p>12. $(3^{-4})^2$</p> <p>Power of a Power Property:</p> $3^{\square} = 3^{\square}$



Algebra 1 Quick Check – Form C

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $6^2 \times 6^5$ <p>6^7 12^{10} 36^7 6^{10}</p>	<p>2.</p> $2^7 \times 2^3$ <p>2^{21} 4^{10} 4^{21} 2^{10}</p>
<p>3.</p> $\frac{5^{12}}{5^4}$ <p>5^{-8} 5^8 1^3 5^{-3}</p>	<p>4.</p> $\frac{4^5}{4^{15}}$ <p>4^{10} 1^{-3} 4^{-3} 4^{-10}</p>
<p>5.</p> $(8^2)^{10}$ <p>8^{-8} 8^{12} 8^{20} 8^5</p>	<p>6.</p> $(6^9)^3$ <p>6^6 6^3 6^{12} 6^{27}</p>



Learning Target: I will simplify numerical expressions with integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 4: Guided Practice (Whole Group)

Directions: Below are solved problems to simplify expressions with exponents. For each solution step, discuss what happened and fill in the missing information.

<p>1. $3^6 \times 3^2 = 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \times 3 \cdot 3$</p> $= 3^8$ <p>2. $9^3 \cdot 9^4 = 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9$</p> $= 9^7$	<p>Multiplying Powers Property (3^6, 3^2, 9^4 and 9^3 are called powers)</p> <p>To multiply powers with the same bases, _____ the exponents.</p> $3^6 \cdot 3^2 = \underline{\hspace{2cm}} = 3^8$ $9^3 \cdot 9^4 = \underline{\hspace{2cm}} = 9^7$
<p>3. $\frac{4^5}{4^2} = \frac{\cancel{4} \cdot \cancel{4} \cdot 4 \cdot 4 \cdot 4}{\cancel{4} \cdot \cancel{4}}$</p> $= 4^3$ <p>4. $\frac{7^2}{7^5} = \frac{\cancel{7} \cdot \cancel{7}}{\cancel{7} \cdot \cancel{7} \cdot 7 \cdot 7 \cdot 7}$</p> $= 7^{-3}$	<p>Dividing Powers Property (4^5, 4^2, 7^2 and 7^5 are each called powers)</p> <p>To divide powers with the same bases, _____ the exponents.</p> $\frac{4^5}{4^2} = \underline{\hspace{2cm}} = 4^3$ $\frac{7^2}{7^5} = \underline{\hspace{2cm}} = 7^{-3}$
<p>5. $(5^2)^4 = 5^2 \cdot 5^2 \cdot 5^2 \cdot 5^2$</p> $= 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5$ $= 5^8$ <p>6. $(8^3)^2 = 8^3 \cdot 8^3$</p> $= 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$ $= 8^6$	<p>Power of a Power Property (5^2 and 8^3 are called a powers)</p> <p>To find the power of a power, _____ the exponents.</p> $(5^2)^4 = \underline{\hspace{2cm}} = 5^8$ $(8^3)^2 = \underline{\hspace{2cm}} = 8^6$



Name _____ Date _____

Learning Target: I will simplify numerical expressions with integer exponents

Algebra 1 – Readiness Standard 4 – 8.EE.1

Readiness for finding equivalent numerical expressions using square roots and cube roots

Session 4: Guided Practice (Pairs)

Directions: Simplify each expression using repeated multiplication and using the power properties.

7. $4^7 \cdot 4^{-3}$	8. $7^{-6} \times 7^2$
9. $\frac{9^4}{9^7}$	10. $\frac{8^9}{8^5}$
11. $(8^3)^4$	12. $(6^{-4})^2$



Algebra 1 Quick Check – Form D

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $4^5 \times 4^3$ <p>4^{15} 4^8 8^{15} 16^8</p>	<p>2.</p> $9^4 \times 9^6$ <p>81^{10} 9^{24} 18^{24} 9^{10}</p>
<p>3.</p> $\frac{7^2}{7^{10}}$ <p>7^{12} 7^{-8} 7^{-5} 1^{-8}</p>	<p>4.</p> $\frac{2^9}{2^3}$ <p>2^{12} 2^3 1^3 2^6</p>
<p>5.</p> $(5^4)^8$ <p>5^{12} 5^{32} 5^2 5^{-4}</p>	<p>6.</p> $(9^2)^6$ <p>9^{12} 9^{-3} 9^8 9^{-4}</p>



Algebra 1 Quick Check – Form E

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $5^6 \times 5^4$ <p>5^{10} 5^{24} 25^{10} 10^{24}</p>	<p>2.</p> $4^3 \times 4^7$ <p>16^{10} 8^{21} 4^{10} 4^{21}</p>
<p>3.</p> $\frac{2^8}{2^4}$ <p>2^{-4} 2^4 1^2 1^4</p>	<p>4.</p> $\frac{8^3}{8^9}$ <p>1^6 1^{-3} 8^6 8^{-6}</p>
<p>5.</p> $(5^6)^2$ <p>5^8 5^4 5^{12} 5^3</p>	<p>6.</p> $(3^4)^8$ <p>3^4 3^{32} 3^{12} 3^2</p>



Algebra 1 Quick Check – Form F

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $3^4 \times 3^2$ <p>3^8 3^6 6^8 9^6</p>	<p>2.</p> $7^3 \times 7^6$ <p>14^{18} 49^9 7^{18} 7^9</p>
<p>3.</p> $\frac{4^2}{4^6}$ <p>1^{-4} 4^4 1^{-3} 4^{-4}</p>	<p>4.</p> $\frac{9^8}{9^4}$ <p>9^4 9^{-4} 1^2 1^{-4}</p>
<p>5.</p> $(6^4)^2$ <p>6^6 6^8 6^2 6^{-2}</p>	<p>6.</p> $(2^3)^6$ <p>2^3 2^2 2^9 2^{18}</p>



Algebra 1 Quick Check – Form G

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $6^3 \times 6^5$ <p>6^8 12^{10} 36^7 6^{10}</p>	<p>2.</p> $2^7 \times 2^4$ <p>2^{21} 4^{10} 4^{21} 2^{11}</p>
<p>3.</p> $\frac{5^{12}}{5^4}$ <p>5^{-8} 5^8 1^3 5^{-3}</p>	<p>4.</p> $\frac{4^5}{4^{12}}$ <p>4^{10} 1^{-3} 4^{-7} 4^{-10}</p>
<p>5.</p> $(8^2)^{10}$ <p>8^{-8} 8^{12} 8^{20} 8^5</p>	<p>6.</p> $(6^5)^3$ <p>6^6 6^3 6^{15} 6^{27}</p>



Algebra 1 Quick Check – Form H

Readiness Standard 4 - 8.EE.1

Name _____ Date _____

Learning Target: I will find equivalent numerical expressions using properties of integer exponents.

Directions: Circle the equivalent expression for each problem. (Work time: 3 minutes)

<p>1.</p> $4^5 \times 4^3$ <p>4^{15} 4^8 8^{15} 16^8</p>	<p>2.</p> $9^4 \times 9^6$ <p>81^{10} 9^{24} 18^{24} 9^{10}</p>
<p>3.</p> $\frac{7^2}{7^{10}}$ <p>7^{12} 7^{-8} 7^{-5} 1^{-8}</p>	<p>4.</p> $\frac{2^9}{2^3}$ <p>2^{12} 2^3 1^3 2^6</p>
<p>5.</p> $(5^4)^8$ <p>5^{12} 5^{32} 5^2 5^{-4}</p>	<p>6.</p> $(9^2)^6$ <p>9^{12} 9^{-3} 9^8 9^{-4}</p>