

Introduction to Geometric Sequences – Day 2  
Unit 7: Representations of Exponential Relations

Determine if the sequence is geometric. If it is, find the common ratio.

<p>1. 1, 5, 25, 125, ...</p> $\frac{5}{1} = 5$ $\frac{25}{5} = 5$ $\frac{125}{25} = 5$ <p style="text-align: center;">Geometric <math>r = 5</math></p>	<p>2. 4, 16, 64, 256, ...</p> $\frac{16}{4} = 4$ $\frac{64}{16} = 4$ $\frac{256}{64} = 4$ <p style="text-align: center;">Geometric <math>r = 4</math></p>
<p>3. -1, -3, -9, -27, ...</p> $\frac{-3}{-1} = 3$ $\frac{-9}{-3} = 3$ $\frac{-27}{-9} = 3$ <p style="text-align: center;">Geometric <math>r = 3</math></p>	<p>4. -4, -8, -16, -32, ...</p> $\frac{-8}{-4} = 2$ $\frac{-16}{-8} = 2$ $\frac{-32}{-16} = 2$ <p style="text-align: center;">Geometric <math>r = 2</math></p>
<p>5. -1, -4, -16, -64, ...</p> $\frac{-4}{-1} = 4$ $\frac{-16}{-4} = 4$ $\frac{-64}{-16} = 4$ <p style="text-align: center;">Geometric <math>r = 4</math></p>	<p>6. 4, 16, 36, 64, ...</p> $\frac{16}{4} = 4$ $\frac{36}{16} = \frac{9}{4}$ $\frac{64}{36} = \frac{16}{9}$ <p style="text-align: center;">Not Geometric</p>
<p>7. -1, -2, -4, -8, ...</p> $\frac{-2}{-1} = 2$ $\frac{-4}{-2} = 2$ $\frac{-8}{-4} = 2$ <p style="text-align: center;">Geometric <math>r = 2</math></p>	<p>8. -1, 4, -16, 64, ...</p> $\frac{4}{-1} = -4$ $\frac{-16}{4} = -4$ $\frac{64}{-16} = -4$ <p style="text-align: center;">Geometric <math>r = -4</math></p>
<p>9. -2, -8, -32, -128, ...</p> $\frac{-8}{-2} = 4$ $\frac{-32}{-8} = 4$ $\frac{-128}{-32} = 4$ <p style="text-align: center;">Geometric <math>r = 4</math></p>	<p>10. 1, 6, 36, 216, ...</p> $\frac{6}{1} = 6$ $\frac{36}{6} = 6$ $\frac{216}{36} = 6$ <p style="text-align: center;">Geometric <math>r = 6</math></p>

<p>11. 4, -20, 100, -500, ...</p> $\frac{-20}{4} = -5$ <p>Geometric</p> $\frac{100}{-20} = -5$ $r = -5$ $\frac{-500}{100} = -5$	<p>12. -3, -12, -48, -192, ...</p> $\frac{-12}{-3} = 4$ <p>Geometric</p> $\frac{-48}{-12} = 4$ $r = 4$ $\frac{-192}{-48} = 4$
<p>13. 2, -10, 50, -250, ...</p> $\frac{-10}{2} = -5$ <p>Geometric</p> $\frac{50}{-10} = -5$ $r = -5$ $\frac{-250}{50} = -5$	<p>14. -1, 2, 7, 14, ...</p> $\frac{2}{-1} = -2$ <p>Not Geometric</p> $\frac{7}{2} = \frac{7}{2}$ $\frac{14}{7} = 2$
<p>15. 4, 8, 16, 32, ...</p> $\frac{8}{4} = 2$ <p>Geometric</p> $\frac{16}{8} = 2$ $r = 2$ $\frac{32}{16} = 2$	<p>16. 4, 20, 100, 500, ...</p> $\frac{20}{4} = 5$ <p>Geometric</p> $\frac{100}{20} = 5$ $r = 5$ $\frac{500}{100} = 5$
<p>17. -4, 16, -64, 256, ...</p> $\frac{16}{-4} = -4$ <p>Geometric</p> $\frac{-64}{16} = -4$ $r = -4$ $\frac{256}{-64} = -4$	<p>18. -3, 12, -48, 192, ...</p> $\frac{12}{-3} = -4$ <p>Geometric</p> $\frac{-48}{12} = -4$ $r = -4$ $\frac{192}{-48} = -4$
<p>19. -1, 5, -25, 125, ...</p> $\frac{5}{-1} = -5$ <p>Geometric</p> $\frac{-25}{5} = -5$ $r = -5$ $\frac{125}{-25} = -5$	<p>20. 4, -16, 64, -256, ...</p> $\frac{-16}{4} = -4$ <p>Geometric</p> $\frac{64}{-16} = -4$ $r = -4$ $\frac{-256}{64} = -4$