

Geometric Progression Intro  
Questions  
(Sequence and Series)

# Geometric Progression Intro Questions (Sequence and Series)

(This slide so that slides print out nicely as 6-slides-horizontal per page)

$$u_3 = 6$$

$$u_4 = 12$$

$$u_3 = 6$$

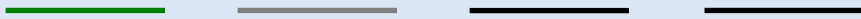
$$u_4 = 9$$

a =

r =

a =

r =



$$u_3 = 6 \quad u_4 = 12$$

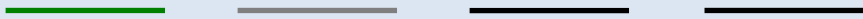
$$u_2 = 6 \quad u_3 = 9$$

$$a = 1.5$$

$$r = 2$$

$$a = 8/3$$

$$r = 1.5$$



$$u_5 = 6 \quad u_6 = -6$$

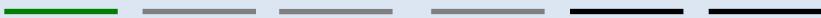
$$u_5 = 6 \quad u_6 = 8$$

a =

r =

a =

r =



$$u_5 = 6 \quad u_6 = -6$$

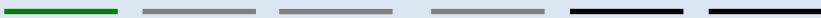
$$u_5 = 6 \quad u_6 = 8$$

$$a = 6$$

$$r = -1$$

$$a = 243/128$$

$$r = 4/3$$



$$a = 3 \quad r = 2$$

$$u_n = 96$$

$n =$

$$a = 0.25 \quad r = 2$$

$$u_n = 64$$

$n =$

$$a = 3 \quad r = 2$$

$$u_n = 96$$

$$n = 6$$

$$a = 0.25 \quad r = 2$$

$$u_n = 64$$

$$n = 9$$

$$u_1 = 2 \quad u_3 = 4.5$$

$$u_1 = 2 \quad u_3 = 4$$

$r =$

$S_4 =$

$r =$

$S_4 =$



$$u_1 = 2 \quad u_3 = 4.5$$

$$u_1 = 2 \quad u_3 = 4$$

$r =$

$S_4 =$

$r =$

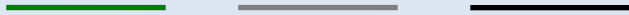
$S_4 =$



$$u_1 = 2 \quad u_3 = 4.5$$

$$r = 3/2$$

$$S_4 = 16.25$$



$$u_1 = 2 \quad u_3 = 4$$

$$r = \sqrt{2}$$

$$S_4 = 6 + 6\sqrt{2}$$



$$a = 16$$

$$r = \frac{1}{2}$$

$$a = 16$$

$$r = -\frac{1}{2}$$

$$S_6 =$$

$$S_6 =$$

$$a = 16$$

$$r = \frac{1}{2}$$

$$S_6 = 31.5$$

$$a = 16$$

$$r = -\frac{1}{2}$$

$$S_6 = 10.5$$

$$u_3 = 5 \quad u_5 = 5$$

$$u_3 = 1 \quad u_5 = 0.01$$

$r =$   
 $S_5 =$

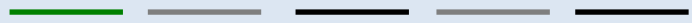
$r =$   
 $S_5 =$

or

or

$r =$   
 $S_5 =$

$r =$   
 $S_5 =$



$$u_3 = 5 \quad u_5 = 5$$

$$r = 1$$

$$S_5 = 25$$

or

$$r = -1$$

$$S_5 = 5$$

$$u_3 = 1 \quad u_5 = 0.01$$

$$r = 1/10$$

$$S_5 = 111.11$$

or

$$r = -1/10$$

$$S_5 = 90.91$$



$$u_3 = 2 \quad u_5 = 2$$
$$r = -1$$

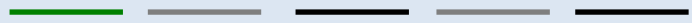
$$S_{\text{even}} =$$

$$S_{\text{odd}} =$$

$$u_3 = -2 \quad u_5 = -2$$
$$r = -1$$

$$S_{\text{even}} =$$

$$S_{\text{odd}} =$$



$$u_3 = 2 \quad u_5 = 2$$
$$r = -1$$

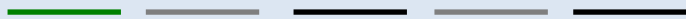
$$S_{\text{even}} = 0$$

$$S_{\text{odd}} = 2$$

$$u_3 = -2 \quad u_5 = -2$$
$$r = -1$$

$$S_{\text{even}} = 0$$

$$S_{\text{odd}} = -2$$



$$u_2 = 27 \quad u_4 = 3$$
$$S_5 = 121$$

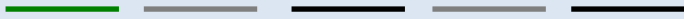
$$u_2 = -27 \quad u_4 = -3$$
$$S_5 = 61$$

a =

r =

a =

r =

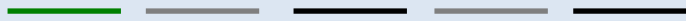


$$u_2 = 27 \quad u_4 = 3$$
$$S_5 = 121$$

$$a = 81$$
$$r = 1/3$$

$$u_2 = -27 \quad u_4 = -3$$
$$S_5 = 61$$

$$a = 81$$
$$r = -1/3$$



$$a = 1 \quad r = 0.1$$

$$n =$$

$$S_n =$$

$$S_\infty =$$

$$a = 1 \quad r = -0.1$$

$$n =$$

$$S_n =$$

$$S_\infty =$$

$$a = 1 \quad r = 0.1$$

$$n =$$

$$S_n =$$

$$S_\infty =$$

$$a = 1 \quad r = -0.1$$

$$n =$$

$$S_n =$$

$$S_\infty =$$

$$S_{\infty} = 6$$

$$a = 4$$

$$S_{\infty} = 100$$

$$a = 10$$

r =

r =

$$S_{\infty} = 6$$

$$a = 4$$

$$S_{\infty} = 100$$

$$a = 10$$

$$r = 1/3$$

$$r = 1/10$$

$$S_{\infty} = 4$$

$$a = 6$$

$$S_{\infty} = 10$$

$$a = \frac{-10}{9}$$

$r =$

$r =$

$u_n =$

$u_3 =$

$$S_{\infty} = 4 \quad a = 6$$

$$r = -0.5$$

$$S_{\infty} = 10 \quad a = \frac{-10}{9}$$

$$r = -1/9$$

$$u_n = -\frac{10}{9} \times \left(-\frac{1}{9}\right)^{n-1}$$

$$u_3 = \frac{10}{6561}$$

$$a = 64 \quad r = \frac{1}{2}$$

$$S_{\infty} =$$

$$a = 64 \quad r = \frac{1}{3}$$

$$S_{\infty} =$$

$$a = 64 \quad r = \frac{1}{2}$$

$$S_{\infty} = 128$$

$$a = 64 \quad r = \frac{1}{3}$$

$$S_{\infty} = 96$$

$$r = \frac{2}{5}$$

$$S_{\infty} = \frac{50}{3}$$

$$r = \frac{-2}{5}$$

$$S_{\infty} = \frac{-50}{3}$$

a =

a =

$$r = \frac{2}{5}$$

$$S_{\infty} = \frac{50}{3}$$

$$a = 10$$

$$r = \frac{-2}{5}$$

$$S_{\infty} = \frac{-50}{3}$$

$$a = -70/3$$