

The second and fifth terms of a geometric series are 0.5 and 32 respectively. Find the first term and the common ratio.

24

$$a = 15, d = 2$$

Write an equation for "the sum of the first 15 terms of a GP is 25"

Write an equation for "the sum of the first 15 terms of an AP is 25"

The first term of a geometric series is 16 and the common ratio is 1.5. Find the least value of  $n$  for which the sum of the first  $n$  terms is greater than 30 000.

9

The sum of the first six terms of an arithmetic series is 213 and the sum of the first ten terms of the series is 295. Find the first term and the common difference.

Find the 15th term of the series  $3 + 6 + 12 + \dots$

Write an equation for "the 15th term of an AP is 25"

$$a = 86, d = -7$$

The first and fourth terms of a geometric series are 5 and 40 respectively. Find the common ratio.

312.5

Find the sum to infinity of the series  $270 + 90 + 30 + \dots$

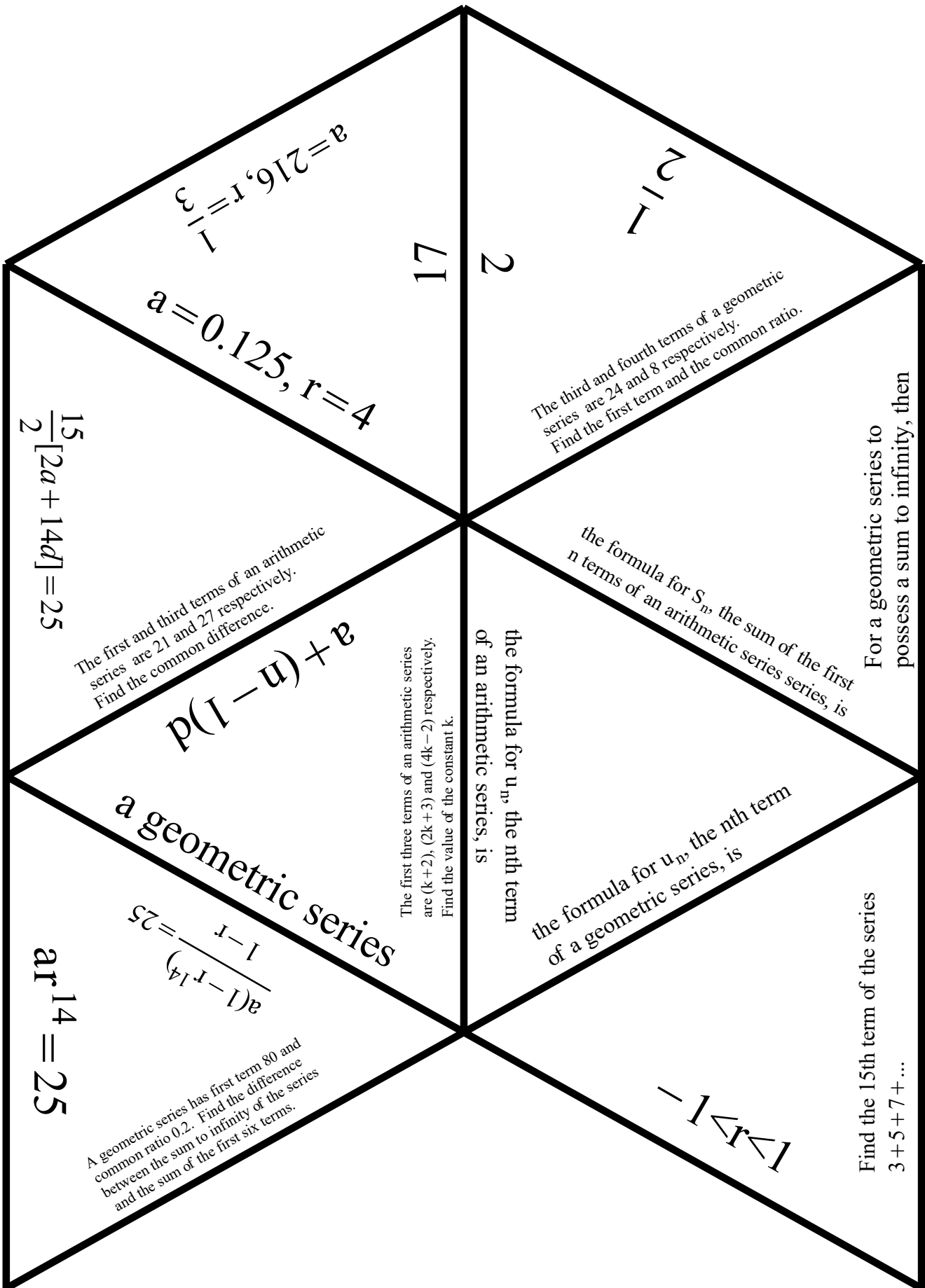
18

$$ar^{n-1}$$

the formula for  $S_n$ , the sum of the first  $n$  terms of a geometric series, is

Write an equation for "the 15th term of a GP is 25"

$$a + 14d = 25$$



$$211$$

$$2$$

$$a = 216, r = \frac{1}{3}$$

$$a = 0.125, r = 4$$

The third and fourth terms of a geometric series are 24 and 8 respectively. Find the first term and the common ratio.

For a geometric series to possess a sum to infinity, then

the formula for  $S_n$ , the sum of the first  $n$  terms of an arithmetic series, is

the formula for  $u_n$ , the  $n$ th term of an arithmetic series, is

The first three terms of an arithmetic series are  $(k+2)$ ,  $(2k+3)$  and  $(4k-2)$  respectively. Find the value of the constant  $k$ .

the formula for  $u_n$ , the  $n$ th term of a geometric series, is

Find the 15th term of the series  
 $3 + 5 + 7 + \dots$

$$171$$

The first and third terms of an arithmetic series are 21 and 27 respectively. Find the common difference.

$$a + (n-1)d$$

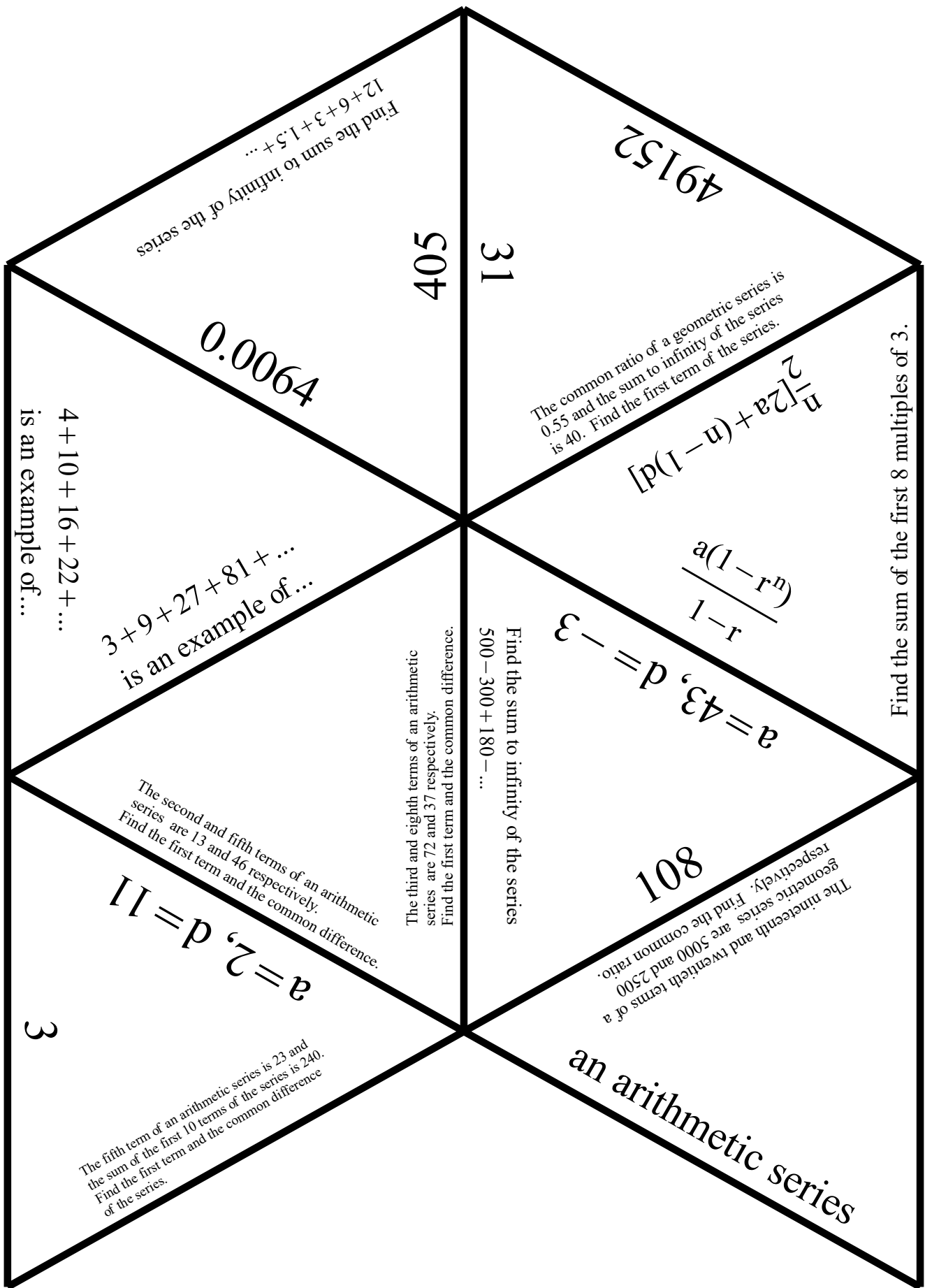
a geometric series

$$\frac{a(1-r^{14})}{1-r} = 25$$

A geometric series has first term 80 and common ratio 0.2. Find the difference between the sum to infinity of the series and the sum of the first six terms.

$$ar^{14} = 25$$

$$\frac{15}{2}[2a + 14d] = 25$$



Find the sum to infinity of the series  
 $12+6+3+1.5+\dots$

31  
 405

49152

The common ratio of a geometric series is 0.55 and the sum to infinity of the series is 40. Find the first term of the series.

$$\frac{n}{2}[2a + (n-1)d]$$

Find the sum of the first 8 multiples of 3.

0.0064

$4+10+16+22+\dots$   
 is an example of...

$3+9+27+81+\dots$   
 is an example of...

$$\frac{a(1-r^n)}{1-r}$$

$$a=43, d=3$$

The third and eighth terms of an arithmetic series are 72 and 37 respectively. Find the first term and the common difference.

Find the sum to infinity of the series  
 $500-300+180-\dots$

Find the sum of the first 8 multiples of 3.

The second and fifth terms of an arithmetic series are 13 and 46 respectively. Find the first term and the common difference.

$$a=2, d=11$$

108

The nineteenth and twentieth terms of a geometric series are 5000 and 2500 respectively. Find the common ratio.

an arithmetic series

The fifth term of an arithmetic series is 23 and the sum of the first 10 terms of the series is 240. Find the first term and the common difference of the series.

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