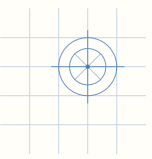


Sums of series — Geometric series



Name: _____

Date: _____

S_n is the sum of the first n terms. Each one multiplies by the same number.

1 6, 18, 54, ... $S_5 = 726$ _____

$$S_5 = 6(3^5 - 1) \div (3 - 1)$$

$$S_5 = 6 \times 242 \div 2 = 726$$

2 5, 15, 45, ... $S_5 =$ _____

3 3, 12, 48, ... $S_5 =$ _____

4 3, 9, 27, ... $S_5 =$ _____

5 3, 9, 27, ... $S_6 =$ _____

6 4, 12, 36, ... $S_5 =$ _____

7 2, 8, 32, ... $S_5 =$ _____

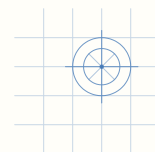
8 8, 24, 72, ... $S_5 =$ _____

9 4, 12, 36, ... $S_6 =$ _____

10 2, 4, 8, ... $S_6 =$ _____



Sums of series · Geometric series — Answer key



- | | | | |
|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| 1. S_5 for 6, 18, 54, ... = 726 | 2. S_5 for 5, 15, 45, ... = 605 | 3. S_5 for 3, 12, 48, ... = 1023 | 4. S_5 for 3, 9, 27, ... = 363 |
| 5. S_6 for 3, 9, 27, ... = 1092 | 6. S_5 for 4, 12, 36, ... = 484 | 7. S_5 for 2, 8, 32, ... = 682 | 8. S_5 for 8, 24, 72, ... = 968 |
| 9. S_6 for 4, 12, 36, ... = 1456 | 10. S_6 for 2, 4, 8, ... = 126 | | |