

Name : _____

Geometric Sequence

Sheet 1

Determine whether the given sequence is geometric. If it is geometric, find the common ratio(r).

1) 3.5, 10.5, 31.5, 94.5, 283.5, ...

2) 0, 2, 5, 9, 14, ...

3) $\frac{4}{7}, \frac{2}{7}, \frac{1}{7}, \frac{1}{14}, \frac{1}{28}, \dots$

4) 9.2, -18.4, 36.8, -73.6, 147.2, ...

5) 5, 10, 20, 25, 35, ...

6) $1, \sqrt{5}, 5, 5\sqrt{5}, 25, \dots$

7) -2, -14, -98, -686, -4802, ...

8) -13, -9, -5, -1, 3, ...

9) 6.8, 7.1, 7.4, 7.7, 8, ...

10) $-\frac{3}{4}, -\frac{1}{2}, -\frac{1}{3}, -\frac{2}{9}, -\frac{4}{27}, \dots$

Geometric Sequence

Determine whether the given sequence is geometric. If it is geometric, find the common ratio(r).

1) 3.5, 10.5, 31.5, 94.5, 283.5, ...

Yes, $r = 3$

2) 0, 2, 5, 9, 14, ...

No

3) $\frac{4}{7}, \frac{2}{7}, \frac{1}{7}, \frac{1}{14}, \frac{1}{28}, \dots$

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

4) 9.2, -18.4, 36.8, -73.6, 147.2, ...

Yes, $r = -2$

5) 5, 10, 20, 25, 35, ...

No

6) $1, \sqrt{5}, 5, 5\sqrt{5}, 25, \dots$

Yes, $r = \sqrt{5}$

7) -2, -14, -98, -686, -4802, ...

Yes, $r = 7$

8) -13, -9, -5, -1, 3, ...

No

9) 6.8, 7.1, 7.4, 7.7, 8, ...

No

10) $-\frac{3}{4}, -\frac{1}{2}, -\frac{1}{3}, -\frac{2}{9}, -\frac{4}{27}, \dots$

Yes, $r = \frac{2}{3}$