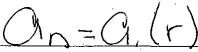
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Find the common ratio of each geometric sequence. Then find the

next three terms in each geometric sequence.

1. 1, 4, 16, 64, ... common ratio:

256,1024,4096

3. 128, 64, 32, 16, ...

common ratio:

2. 10, 100, 1000, 10,000, ...

common ratio:

100,000, 1000,000, 10,000, arc

4. 4, -20, 100, -500, ...

common ratio: -5

2500,-12500,62500

5. The first term of a geometric sequence is 2 and the common ratio is 4. Find the 6th term.

U6=2(4)6-1

6. The first term of a geometric sequence is -3 and the common ratio is 2. Find the 8th term.

Q8=-3(2

7. The first term of a geometric sequence is 7 and the common ratio is -2. Find the 9th term.

ag=7(-29-1

8. What is the 5th term of the geometric sequence 9, 27, 81, 243, ...?

1=9(3)54

common ratio (r):

first term (a_1) :

5th term:

9. What is the 13th term of the geometric sequence

 $-2, 4, -8, 16, \dots$?

1,3=-2/-2

common ratio (r):

first term (a_1) :

13th term:

10. Martin got a job at a starting pay of \$8.00 per hour. His boss told him that if he works hard he can get a raise each year. The table shows Martin's wage for the first few years. Find Martin's hourly wage after 6 years. Round to the nearest cent.

common ratio (r):

first term (a_1) :

6th term:

a.=8(1.2)

Hourly Year Wage (\$) 1 \$8.00 2 \$9.60 \$11.52

Practice B

LESSON Geometric Sequences 11-1

Find the next three terms in each geometric sequence.

4. 40, 10,
$$\frac{5}{2}$$
, $\frac{5}{8}$, ...

5. The first term of a geometric sequence is 6 and the common ratio is -8. Find the 7th term.

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- **6.** The first term of a geometric sequence is -3and the common ratio is $\frac{1}{2}$. Find the 6th term.

- 7. The first term of a geometric sequence is -0.25and the common ratio is -3. Find the 10th term.

- 8. What is the 12th term of the geometric sequence -4, -12, -36, ...? $\Gamma = 3$ $\alpha, = -4$

- 9. What is the 10th term of the geometric sequence 2, -6, 18, ...? a, = Z r=-3

$$Q_{10} = 2(-3)^{10-1}$$

10. What is the 6th term of the geometric sequence 50, 10, 2, ...? a. = 50 r==

- 11. A shoe store is discounting shoes each month. A pair of shoes cost \$80. The table shows the d O.



liscount prices for several months. Find the	cost
of the shoes after 8 months. Round your ans	wer
the nearest cent.	
01=80 r= .9	
	4

Month	Price	٠.
1	\$80.00 >	bx
2	\$72.00	ľ
3	\$64.80	1 .

Az=80:(.9)87