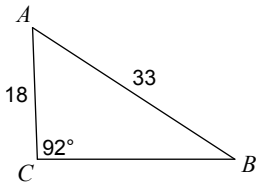


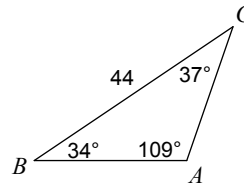
## Trig, Sequence, & Financial Review

Find each measurement indicated. Round your answers to the nearest tenth.

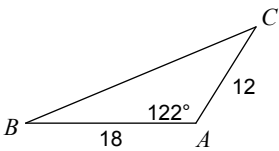
1) Find  $m\angle B$



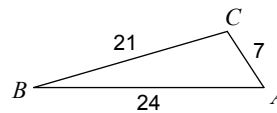
2) Find AB



3) Find BC



4) Find  $m\angle A$



For each sequence, state if it is arithmetic, geometric, or neither.

5)  $-1, 2, 7, 14, 23, \dots$

6)  $9, 209, 409, 609, 809, \dots$

Find the first four terms in each sequence.

7)  $a_n = 7 - 3n$

8)  $a_n = -4 \cdot 5^{n-1}$

Find the tenth term in each sequence.

9)  $a_n = -5 + 2n$

10)  $a_n = -2.5 \cdot (-4)^{n-1}$

Find the explicit formula for the given arithmetic sequence.

11)  $-5, 5, 15, 25, \dots$

12)  $8, 5, 2, -1, \dots$

Find the explicit formula for the given geometric sequence.

13) 4, 12, 36, 108, ...

14) -2, 8, -32, 128, ...

Use a formula to evaluate each arithmetic series described.

15)  $\sum_{n=1}^{13} (3n - 13)$

16) The sum of the first 10 terms of 29, 38, 47, ...

Use a formula to evaluate each geometric series described.

17) The sum of the first 8 terms of 4, -20, 100, ...

18) The sum of the first 5 terms of -2, -1,  $-\frac{1}{2}$ , ...

Find the indicated amount to the nearest penny.

19) Jill invests \$5,393 in a savings account with a fixed annual interest rate of 8% compounded 2 times per year. What will the account balance be after 10 years?

20) Ndiba invests a sum of money in a savings account with a fixed annual interest rate of 6% compounded 12 times per year. After 10 years, the balance reaches \$2,183.28. What was the amount of the initial investment?