Arithmetic \& Geometric Sequences

Name $\qquad$ Class $\qquad$ Date $\qquad$
1 What is the pattern of the sequence, 1, 2.5, 4, 5.5, 7...?
Circle the answer letter.
a. add 2.5 to every number
b. the sum of the previous two numbers
c. add 1.5 to every number
d. every other number is listed

2 What is the pattern of the sequence, $1,4,9,16,25,36 \ldots$ ?

6 A class takes a field trip to the zoo to watch a movie about animals. The movie times are 10:15, 11:00, 11:45 and 12:30. If the theater likes there to be 15 minutes between shows, how long is the movie?

Fill in the answer.
minutes


7 The sequence, $0,1,1,2,4,7,13 \ldots$ is similar to the Fibonacci sequence. What are the next three numbers?


7, 14, 28, $\qquad$ ,

5 What is the next figure in the sequence shown? Circle it.


10 The following sequence, $8,16,24 \ldots$ is used to represent the perimeter of an octagon with sides that equal $1,2,3 \ldots$ What is the $12^{\text {th }}$ number in the sequence?
$89 \quad 94 \quad 96 \quad 104$

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Fill in the answer.

30
minutes

(7) The sequence, $0,1,1,2,4,7,13 \ldots$ is similar to the Fibonacci sequence. What are the next three numbers?

the sequence? Complete the sequence.
1, 8, 27... represents a number cubed. The volume
$7,14,28,56,112$ of a cube with sides 8 cm long $=8^{3}$ or $512 \mathrm{~cm}^{3}$.
(10) The following sequence, $8,16,24 \ldots$ is used to represent the perimeter of an octagon with sides that equal $1,2,3 \ldots$. What is the $12^{\text {th }}$ number in the sequence?

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