9 Ms . Lewis has 50 blocks. She uses 22 of these blocks to make the pattern shown below.

Stage 1

Stage 2

Stage 3


How many stages will Ms. Lewis be able to complete with the 50 blocks?

Justify your answer.

20 The 4 arrows below repeat in this order to make a pattern.


Which arrow is the $74^{\text {th }}$ term?
a

b


C

d


24 A repeating pattern is shown below.


What is the $16^{\text {th }}$ figure in the pattern?
a

b


C

d


6 Consider the five terms in the following pattern.


If the pattern continues in the same way, how many circles will be in the seventh term?
a 21
b 25
C 28
d 36

14 Which rule describes the following pattern?
$1,2,4,8$
a Start with 1 and add 1 to find the next term.
b Start with 1 and add 2 to find the next term.

C Start with 1 and divide by 2 to find the next term.
d Start with 1 and multiply by 2 to find the next term.

