

Name: _____ Date: _____

SOL 4.15 ASSESSMENT

1. The first four figures are the core of this pattern.



Based on the core of the pattern, the 13th figure in this pattern will be a –

a.



b.



c.



d.



2. Cole is using a pattern to make figures from paper triangles like this one:
He has made four figures using this pattern, as shown.



Figure 1

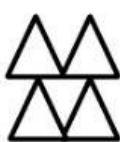


Figure 2

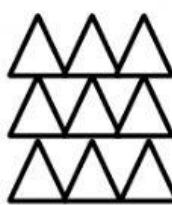


Figure 3

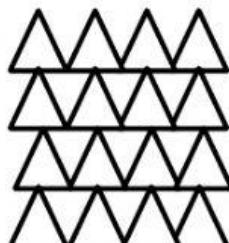


Figure 4



Figure 5

Exactly how many paper triangles will Cole need to make the seventh figure in this pattern?

a. 36

b. 49

c. 64

d. 81

3. Molly used toothpicks to create a pattern. The first five steps of her pattern are shown.



Step 1



Step 2



Step 3



Step 4



Step 5

Molly will continue using toothpicks to extend her pattern. How many toothpicks will Molly use for the next step of her pattern?

a. 10

b. 6

c. 11

d. 12

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4. Look at the number pattern below.

144, 132, 120, 108, 96, 84

If the pattern continues using the same rule, what will be the 9th number in the pattern?

a. 72

b. 60

c. 48

d. 36

5. This number pattern follows a rule.

$\frac{1}{4}$, $\frac{3}{4}$, $1\frac{1}{4}$, $1\frac{3}{4}$, _____

The pattern will continue in the same way. What is the next fraction number in this pattern?

a. 2

b. $2\frac{1}{4}$

c. $2\frac{3}{4}$

d. $2\frac{2}{4}$

6. The table has information about the number of spoons contained in packages.

Number of Packages	2	4	6	8	10	12
Total Number of Spoons	24	48	72	96	120	?

Based on the table, what would be the total number of spoons in 12 of the packages?

a. 124

b. 134

c. 140

d. 144

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7. A table shows the total number of players on different numbers of bowling teams in a tournament.

Bowling Teams	
Number of Teams	Total Number of Players
2	8
7	28
8	32
?	44

The pattern continues in the same way. How many bowling teams are needed for a total of 44 players?

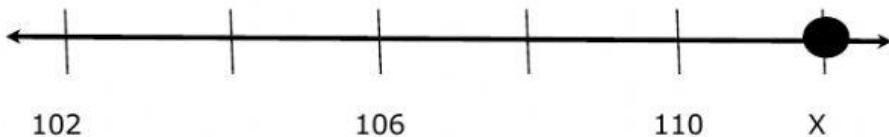
a. 11

b. 12

c. 13

d. 14

8. This number pattern follows a rule.



If the pattern continues the same way, what would be the number that represents 'x'?

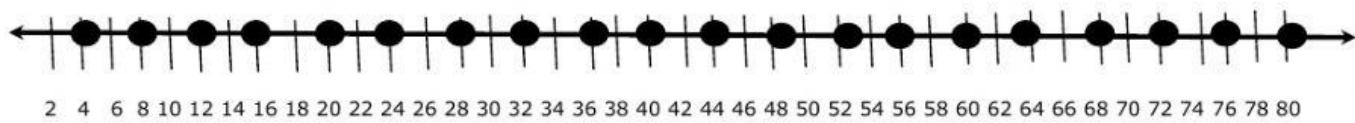
a. 108

b. 112

c. 114

d. 116

9. Lola is using an "add four" rule to mark points in a pattern on her number line.



Using the same rule, what will the next two numbers be in which a dot will be placed on the number line?

a. 82, 84

b. 84, 86

c. 84, 88

d. 82, 86

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10. Match the rule to pattern below.

4, 12, 36
2, 6, 10
9, 7, 5

Rule: Subtract 2
Rule: Multiply 3
Rule: Add 4