Name _____

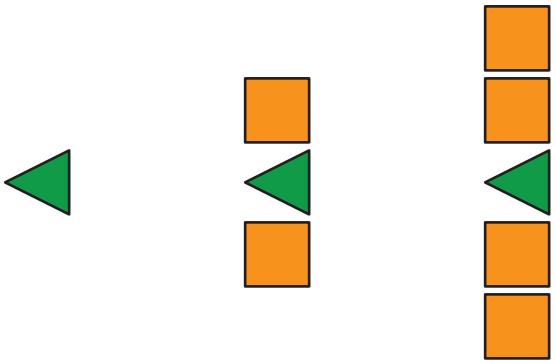
Learning Target: Describe and extend geometric patterns.

Success Criteria:

- I can describe a geometric pattern.
- I can draw the next figure in a geometric pattern.

Explore and Grow

What do you notice about the pattern?

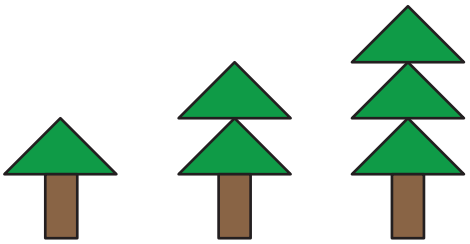


Draw the next figure in the pattern.

MP **Structure** Explain how the number of shapes changes as the pattern continues.

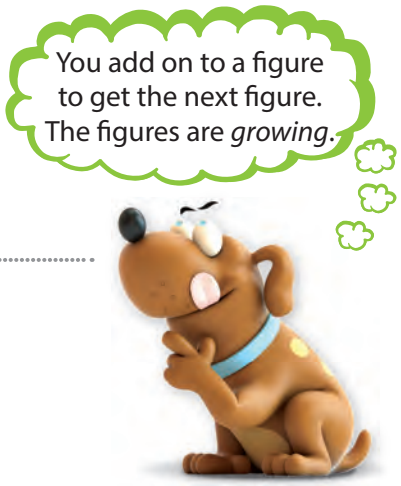
Think and Grow: Extend Patterns

Example Draw the next figure in the pattern.



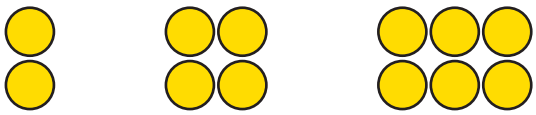
The pattern shows that you add a

_____ to the top of a figure to create the next figure.



The next figure is _____.

Example Draw the next figure in the pattern.

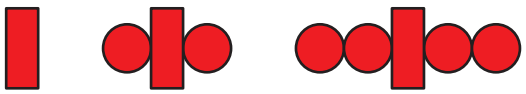


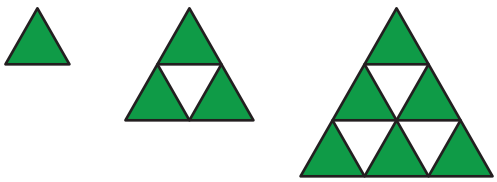
The pattern shows that you add _____ to a figure to create the next figure.

The next figure is _____.

Show and Grow

Draw the next figure in the pattern.

1. 

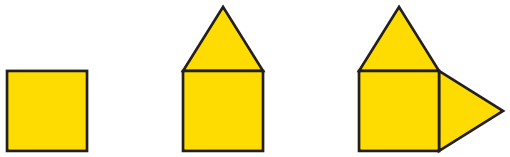
2. 

Name _____

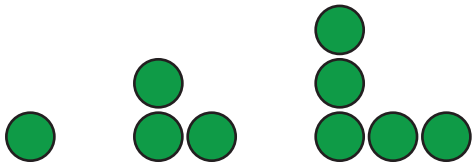
Apply and Grow: Practice

Draw the next figure in the pattern.

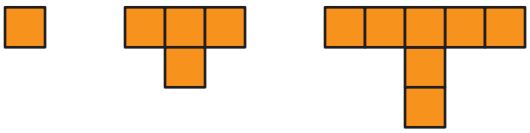
3.



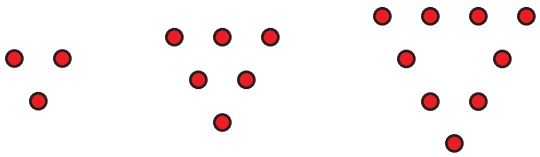
4.



5.



6.



7. **Open-Ended** Draw the first three figures in a geometric pattern. Describe the pattern.

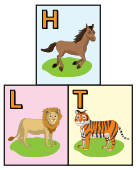
8. **YOU BE THE TEACHER** Your friend says that all geometric patterns *grow* by the same number of objects from one figure to the next. Is your friend correct? Explain.

Think and Grow: Modeling Real Life

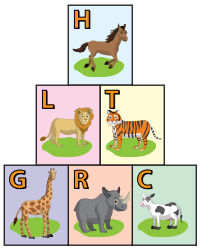
You play a card game. Your card arrangements after several turns are shown. What is your card arrangement after Turn 4?

After Turn 1

After Turn 2



After Turn 3

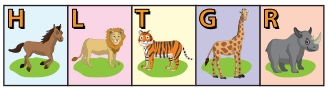


The pattern shows that during each turn, you add a new row of cards to the bottom.

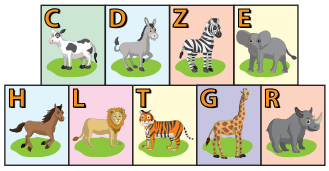
Your card arrangement after Turn 4 is _____.

Show and Grow

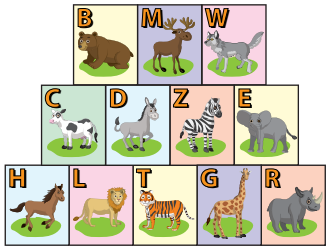
9. You play a different version of the card game above. What is your card arrangement after Turn 4?



After Turn 1



After Turn 2



After Turn 3

10. **DIG DEEPER!** You complete Turn 5 in the card game in Question 9. Starting with Turn 6 and during each turn, you remove the card on the right in each row. How many cards are left after Turn 7?

Name _____

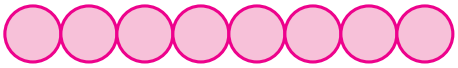
Homework & Practice

Learning Target: Describe and extend geometric patterns.

Example Draw the next figure in the pattern.

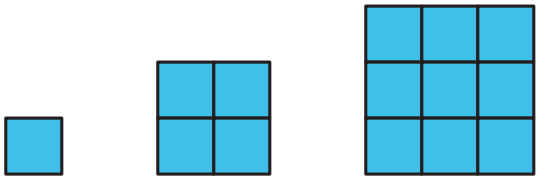
The pattern shows that you add

_____2 circles_____ to a figure to create the next figure.

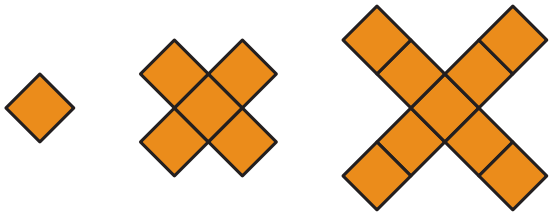
The next figure is  .

Draw the next figure in the pattern.

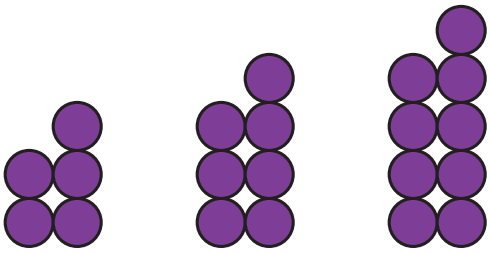
1.



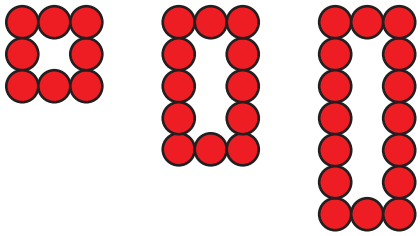
2.



3.



4.



5. MP **Structure** Describe the pattern. Draw the missing figure in the pattern.

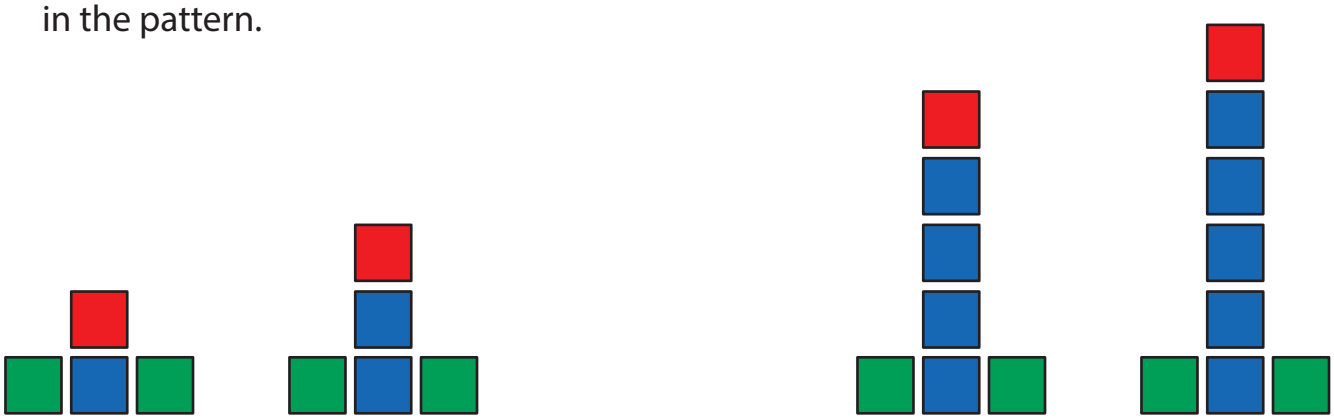
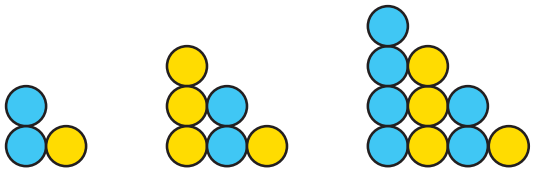


Figure 1 Figure 2 Figure 3 Figure 4 Figure 5

6. **YOU BE THE TEACHER** Your friend says there are 11 blue circles in the next figure of the pattern. Is your friend correct? Explain.



7. **DIG DEEPER!** How many white triangles are in Figure 5 of the pattern? Explain.

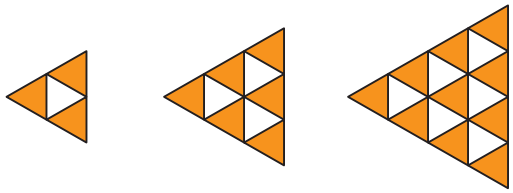
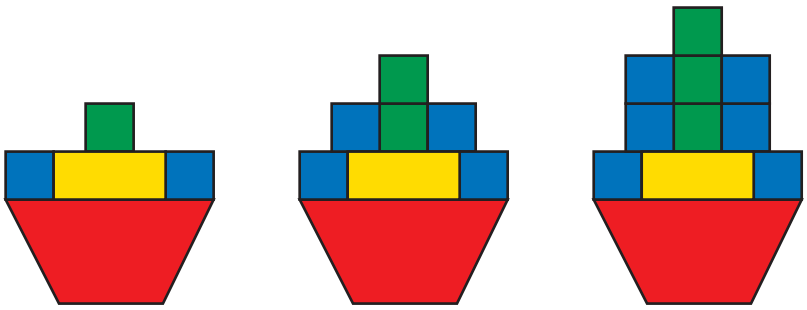


Figure 1 Figure 2 Figure 3

8. **Modeling Real Life** You play a video game. Your cargo ship after several levels is shown. What does your cargo ship look like after Level 4?



After Level 1 After Level 2 After Level 3

Review & Refresh

Find the quotient.

9. $18 \div 3 =$ _____

10. $32 \div 4 =$ _____