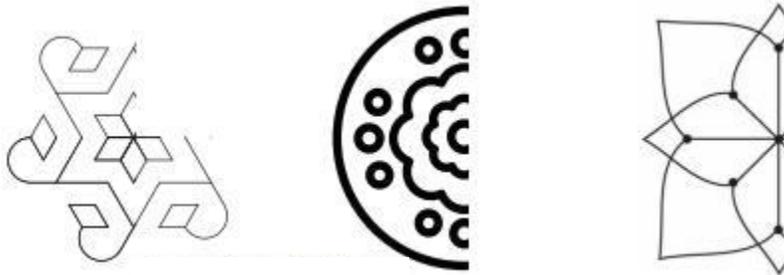


Chapter 3 Patterns

Iterative patterns and processes:

Question 1.

Continue the pattern to complete the rangoli.



Answer:



Question 2.

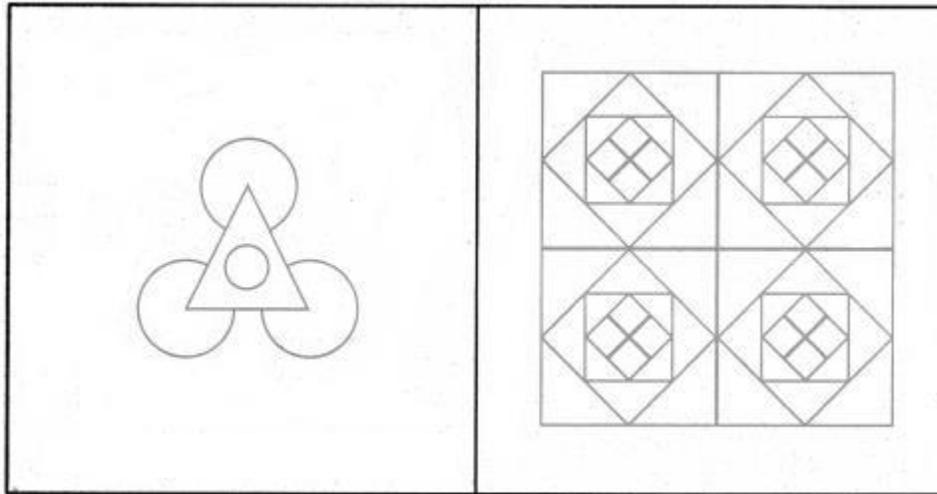
Make a pattern of your own on the given category and draw a rangoli.

a. Triangle and circles

b. Square and triangle

--	--

Answer:

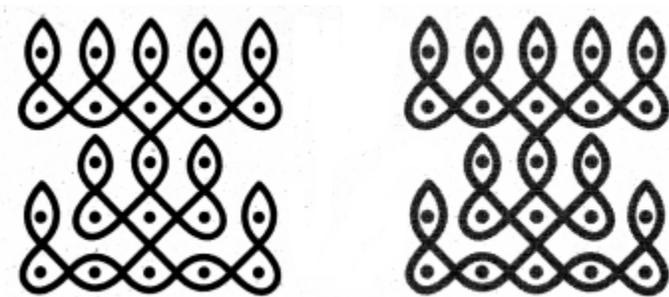


Question 3.

Draw a pullikolams by looking at the reference image without lifting your hand.



Answer:



Question 4.

Draw 2 pullikolams of your choice along the given dots.

addition fact of 8									addition fact of 18		
0	1	2	3	4	5	6	7	8	1	2	3
$\begin{array}{r} +8 \\ 8 \end{array}$	$\begin{array}{r} +7 \\ 8 \end{array}$	$\begin{array}{r} +6 \\ 8 \end{array}$	$\begin{array}{r} +5 \\ 8 \end{array}$	$\begin{array}{r} +4 \\ 8 \end{array}$	$\begin{array}{r} +3 \\ 8 \end{array}$	$\begin{array}{r} +2 \\ 8 \end{array}$	$\begin{array}{r} +1 \\ 8 \end{array}$	$\begin{array}{r} +0 \\ 8 \end{array}$	$\begin{array}{r} +17 \\ 18 \end{array}$	$\begin{array}{r} +16 \\ 18 \end{array}$	$\begin{array}{r} +15 \\ 18 \end{array}$

addition fact of 9										addition fact of 19	
0	1	2	3	4	5	6	7	8	19	1	2
$\begin{array}{r} +9 \\ 9 \end{array}$	$\begin{array}{r} +8 \\ 9 \end{array}$	$\begin{array}{r} +7 \\ 9 \end{array}$	$\begin{array}{r} +6 \\ 9 \end{array}$	$\begin{array}{r} +5 \\ 9 \end{array}$	$\begin{array}{r} +4 \\ 9 \end{array}$	$\begin{array}{r} +3 \\ 9 \end{array}$	$\begin{array}{r} +2 \\ 9 \end{array}$	$\begin{array}{r} +1 \\ 9 \end{array}$	$\begin{array}{r} +0 \\ 19 \end{array}$	$\begin{array}{r} +18 \\ 19 \end{array}$	$\begin{array}{r} +17 \\ 19 \end{array}$

Question 3.

Find out the missing numbers and write them in the given blank.

$\begin{array}{r} 23 \\ + 3_ \\ \hline 60 \end{array}$	$\begin{array}{r} 74 \\ + 5_ \\ \hline 130 \end{array}$	$\begin{array}{r} 45 \\ + 1_ \\ \hline 61 \end{array}$	$\begin{array}{r} 12 \\ + _3 \\ \hline 105 \end{array}$	$\begin{array}{r} 25 \\ + _3 \\ \hline 118 \end{array}$
---	--	---	--	--

Answer:

$\begin{array}{r} 23 \\ + 37 \\ \hline 60 \end{array}$	$\begin{array}{r} 74 \\ + 56 \\ \hline 130 \end{array}$	$\begin{array}{r} 45 \\ + 16 \\ \hline 61 \end{array}$	$\begin{array}{r} 12 \\ + 93 \\ \hline 105 \end{array}$	$\begin{array}{r} 25 \\ + 93 \\ \hline 118 \end{array}$
--	---	--	---	---

Exercise (Text Book Page No. 25):

Continue the patterns by using multiplication as repeated addition.

Pictorial representation					
Repeated addition statement					
Multiplication fact					

a.

Answer:

Pictorial representation					
Repeated addition statement	5	5+5	5+5+5	5+5+5+5	5+5+5+5+5
Multiplication fact	$5 \times 1 = 5$	$5 \times 2 = 10$	$5 \times 3 = 15$	$5 \times 4 = 20$	$5 \times 5 = 25$

Pictorial representation					
Repeated addition statement					
Multiplication fact					

b.

Answer:

Pictorial representation					
Repeated addition statement	2	2 + 2	2+2+2	2+2+2+2	2+2+2+2+2
Multiplication fact	$2 \times 1 = 2$	$2 \times 2 = 4$	$2 \times 3 = 6$	$2 \times 4 = 8$	$2 \times 5 = 10$

Exercise (Text Book Page No. 26):

Express the division facts as repeated subtraction using patterns.

a) $24 \div 3$

Answer:

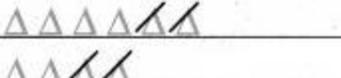
Step: 1		$24 - 3 = 21$
Step: 2		$21 - 3 = 18$
Step: 3		$18 - 3 = 15$
Step: 4		$15 - 3 = 12$
Step: 5		$12 - 3 = 9$
Step: 6		$9 - 3 = 6$
Step: 7		$6 - 3 = 3$
Step: 8		$3 - 3 = 0$

$$24 \div 3 = 8$$

b) $22 \div 2$

Answer:

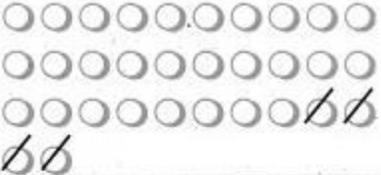
Step: 1		$22 - 2 = 20$
Step: 2		$20 - 2 = 18$
Step: 3		$18 - 2 = 16$

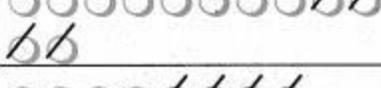
Step: 4		$16 - 2 = 14$
Step: 5		$14 - 2 = 12$
Step: 6		$12 - 2 = 10$
Step: 7		$10 - 2 = 8$
Step: 8		$8 - 2 = 6$
Step: 9		$6 - 2 = 4$
Step: 10		$4 - 2 = 2$
Step: 11		$2 - 2 = 0$

$$22 \div 2 = 11$$

c) $32 \div 4$

Answer:

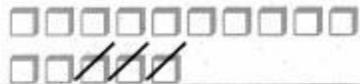
Step: 1		$32 - 4 = 28$
Step: 2		$28 - 4 = 24$
Step: 3		$24 - 4 = 20$

Step: 4		$20 - 4 = 16$
Step: 5		$16 - 4 = 12$
Step: 6		$12 - 4 = 8$
Step: 7		$8 - 4 = 4$
Step: 8		$4 - 4 = 0$

$$32 \div 4 = 8$$

d) $15 \div 3$

Answer:

Step: 1		$15 - 3 = 12$
Step: 2		$12 - 3 = 9$
Step: 3		$9 - 3 = 6$
Step: 4		$6 - 3 = 3$
Step: 5		$3 - 3 = 0$

$$15 \div 3 = 5$$