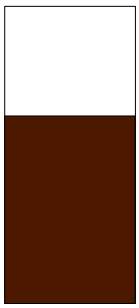
Q1. Look carefully at the series shown below:

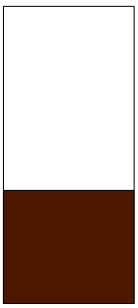
3, 6, 9, 12, 15, ...

How many two-digit numbers will there be in this series if it is continued?

Q2.



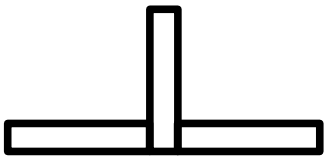
Thermos A



Thermos B

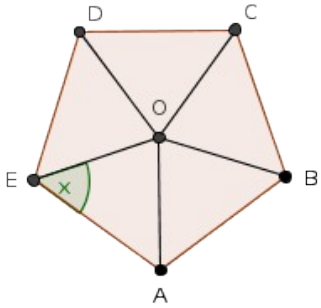
Thermos A and B contain coffee that tastes the same. If one spoon of coffee is added to both the thermoses, which thermos contains sweeter coffee? Why?

Q3. This is 75% of figure A.



(a) Shade 25% of figure A.
(b) Draw 100% of figure A.

Q4 The figure given below is a regular pentagon. The center O is equal in distance from all the 5 points A, B, C, D and E. Find x.



Q. 5 If the [5] key on your calculator is broken, how could you do this problem using the same calculator?

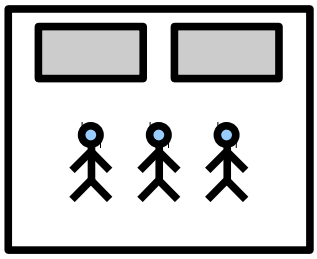
458 + 548 + 354

Solve this problem in atleast two ways.

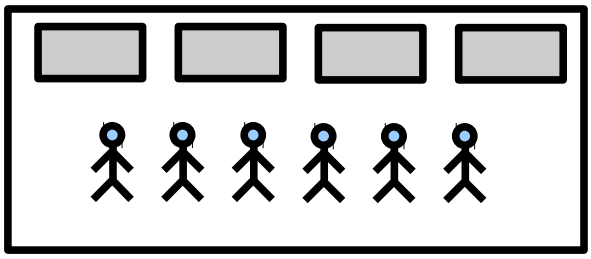
Q. 6 In which pictures is the share of every child not the same as $\frac{2}{3}$?

_____

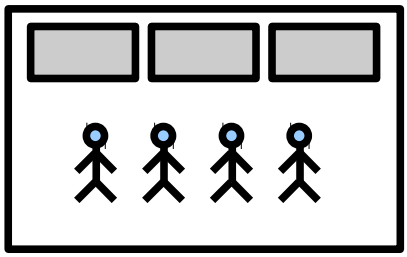
I.



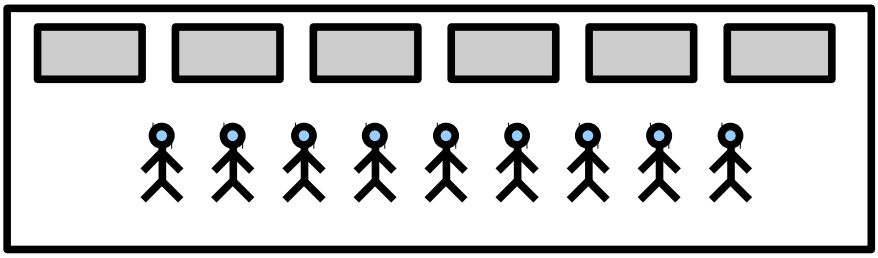
II.



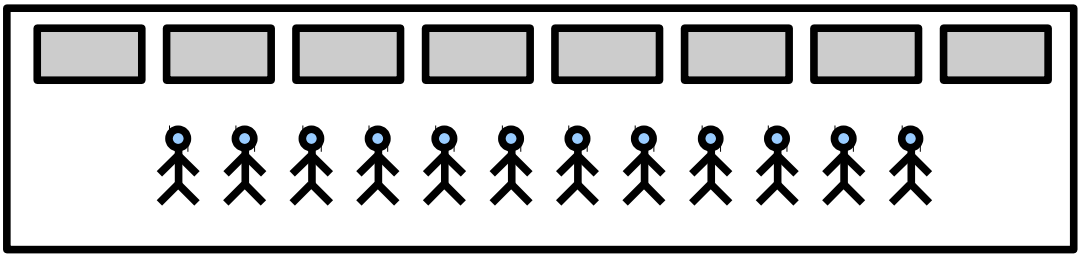
III.



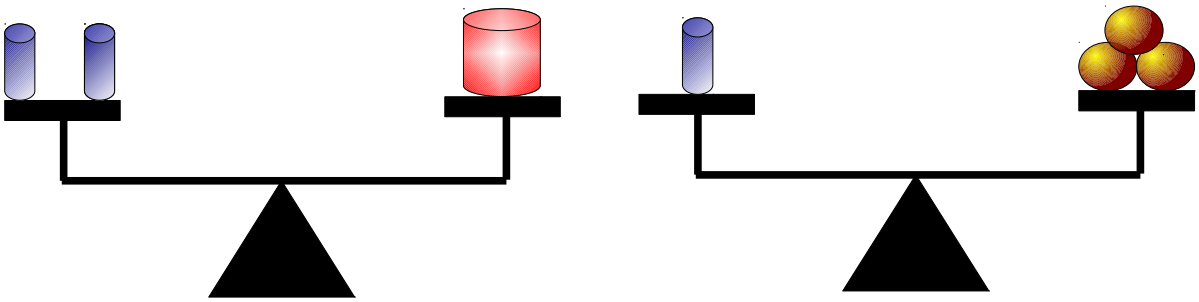
IV.



V.



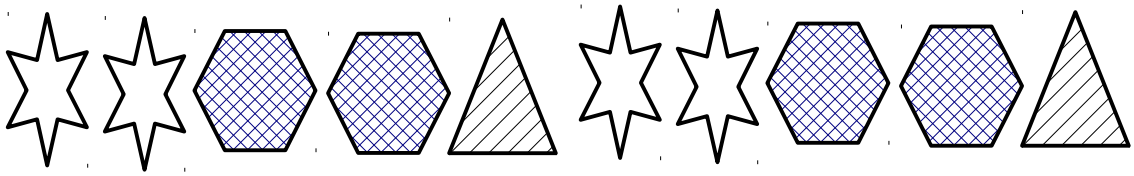
Q. 7



Which shape is the heaviest one? Which shape is the lighest one? Why?

Q. 8 Rahim added 5 spoons of sugar and made 3 cups of tea. Subodh made 5 cups of tea (cups of the same size) by adding 8 spoons of sugar. Imagine the taste of tea made by Rahim and Subodh and say which one is sweeter? Explain how you got the answer.

Q. 9



This pattern continues. Answer the following questions and give reasons.

i) What will be the 55^{th} figure?

ii) What will be the 94^{th} figure?

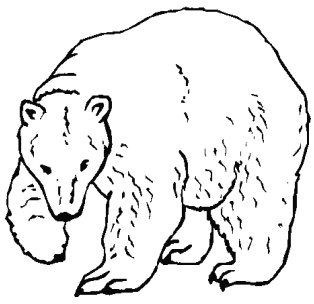
iii) What will be the 101^{th} figure?

iv) When will a figure in the pattern be a star?

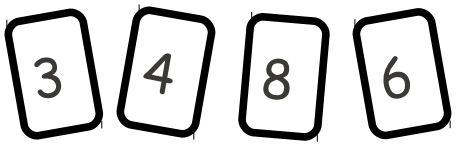
v)When will a figure in the pattern be a hexagon?

vi) When will a figure in the pattern be a triangle?

Q. 10 A polar bear weighs 500 kg. How many children do you need to have the same weight?



Q. 11 Yasmin has 4 number cards.

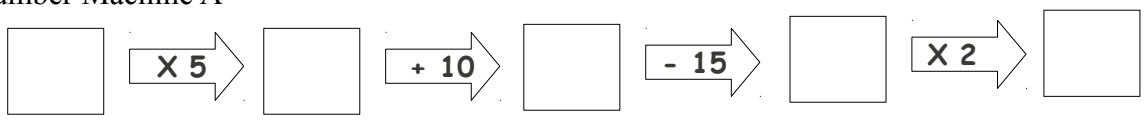


Find two ways to use two number cards to make fractions between $\frac{1}{2}$ and 1.

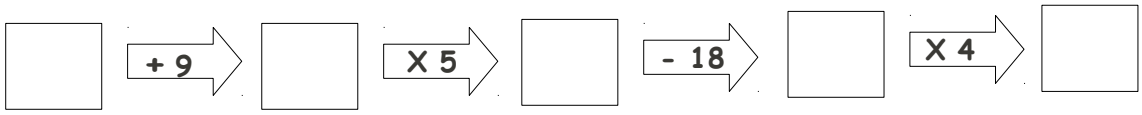
$$\frac{\square}{\square} = \frac{\square}{\square}$$

Q. 12 Given below are two number machines. When you put a number in the '***IN***' box of any of the two machines and do the operations shown in their given order, an answer appears in that machine's '***OUT***' box.

Number Machine A

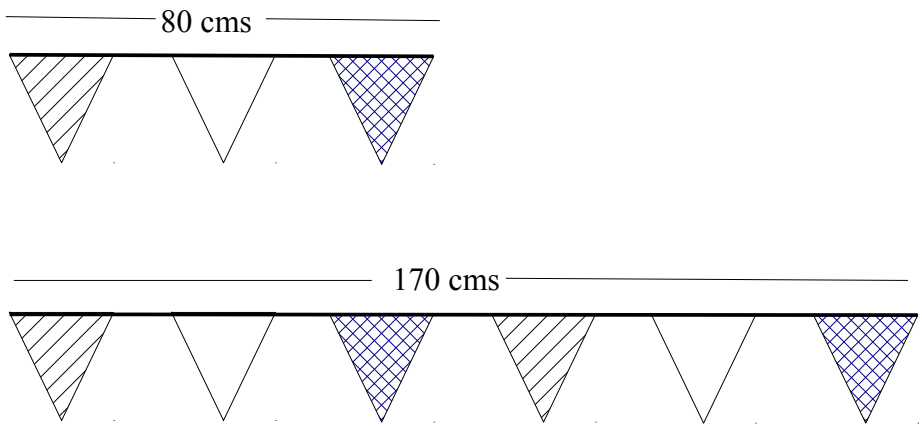


Number Machine B



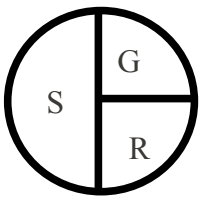
I put a natural number in the '***IN***' box of one of the two machines and got a 70 in its '***OUT***' box. Which machine did I use? And what number did I put in the machine?

Q. 13 Ketan and Keya are putting up lines of coloured flags for their school's Sports Day. All the flags are of same size and are spaced equally along the line.

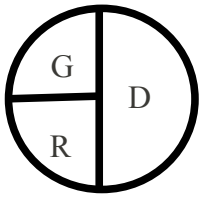


(i) If Ketan makes a line for 60 flags, how long will it be?
(ii) If the length of the line of flags Keya makes is 560 cms how many flags did Keya use?

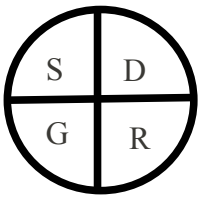
Q. 14 Danny, Rose, Gauri and Salma go to a pizza shop shop and order three different pizzas. Salma doesn't eat fish so they divide the pizzas like shown below.



Cheese



Fish



Vegetable

Danny gets all the pieces labeled D. Rose gets all the pieces labeled R. Gauri gets all the pieces labeled G. Salma gets all the pieces labeled S.

Who ate the most pizza? Why?

Q. 15 Reshma is mixing paints. She makes six cans of brown colour using equal quantities of yellow and violet. The violet paint is made from one-third red paint and remaining from blue paint.

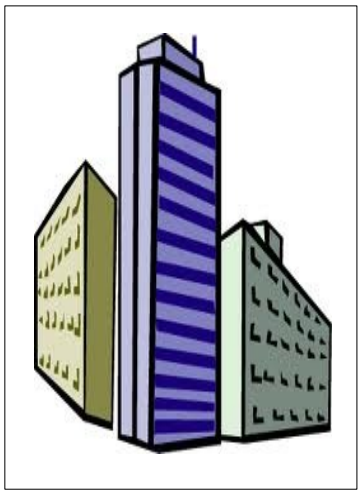
How much red paint did she use?

How much blue paint did she use?

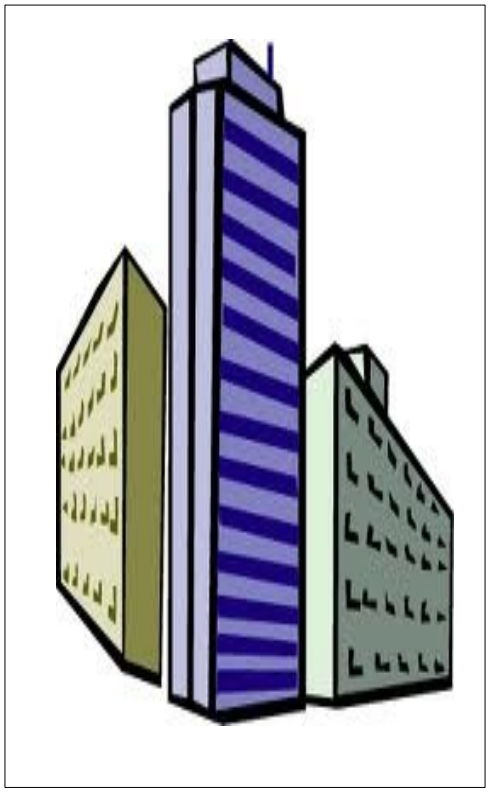
What part of the brown paint is made from the blue paint?

Q. 16

Photograph



Poster



A photograph is enlarged to make a poster. The photograph is 10 cm wide and 14 cm high. The poster is 25 cm wide. How high is the poster? Why?

If the building in the poster is 35 cms tall. How tall is the building in the photograph? Why?

Notes:

1. **What according to you are the characteristics of a 'good' question?**

2. **Make a question which according to you is a 'good' question.**