Think Academy

Year 1 Maths Activities

Think Academy Home Learning Study Pack

Practice Questions and Answers

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Mental Maths:

1. Basic Addition *

$9 + 8 = ?$

$16 + 7 = ?$

Mark only one oval.

- 15 and 27
- 18 and 23
- 17 and 23
- 17 and 22

2. Basic Subtraction *

$14 - 9 = ?$

$21 - 4 = ?$

Mark only one oval.

- 3 and 7
- 5 and 15
- 3 and 17
- 5 and 17

3. Long Addition *

$7 + 8 + 9 =$

$11 + 3 + 7 =$

Mark only one oval.

- 24 and 21
- 18 and 24
- 24 and 22
- 25 and 21

4. Long Subtraction *

$15 - 2 - 7 =$

$21 - 4 - 8 =$

Mark only one oval.

- 5 and 11
- 6 and 9
- 5 and 9
- 6 and 10

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5. Mixed Calculations *

$$22 + 3 - 8 =$$

$$14 - 6 + 9 =$$

Mark only one oval.

- 33 and 15
- 27 and 17
- 17 and 17
- 17 and 13

6. 7 + 9 = ? *

7. 6 + 7 = ? *

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8. 12 - 7 = ? *

9. 18 - 10 = ? *

10. 6 + 6 + 3 = ? *

11. 5 + 6 + 7 = ? *

12. 20 - 8 - 9 = ? *

13. 19 - 2 - 11 = ? *

14. 7 + 9 - 8 =? *

15. 12 - 5 + 3 *

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Word Problems:

1. There are 5 little fish in the blue box and 7 little fish in the green box. Can you tell Mr. Penguin how many little fish he received from his friends? *

Mark only one oval.

- 13
- 12
- 11
- 10

2. Leah has 12 colouring pencils. Ari takes away 8 to use. How many colouring pencils does Leah have left? *

Mark only one oval.

- 4
- 5
- 6
- 7

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3. Alex and Ben are picking apples. Alex picked 9 red apples and 2 green apples. Ben picked 11 red apples. How many red apples did they pick in total? *

Mark only one oval.

- 20
- 21
- 22
- 23

4. There are 20 slices of pizza in the shop. Emma bought 3 slices and Lucas bought 5 slices. How many slices of pizza are left? *

Mark only one oval.

- 12
- 13
- 14
- 15

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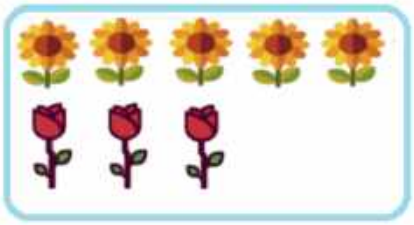
5. There are 7 rabbits playing together on the lawn. 3 rabbits hopped away but 8 other rabbits joined. How many rabbits are there on the lawn now? *

Mark only one oval.

- 10
- 11
- 12
- 13

6. A flower shop sells sunflowers and roses, and starts the day with 18 flowers. By the end of the day, it has sold 7 sunflowers and 3 roses. How many flowers does the shop have left at the end of the day?



Mark only one oval.

- 10
- 8
- 6
- 7

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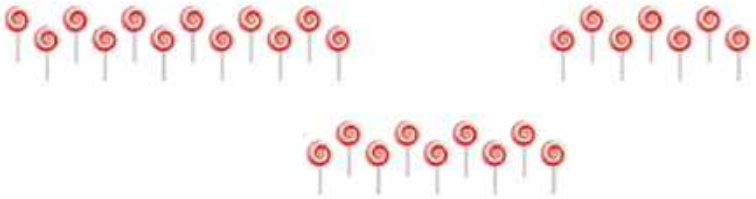
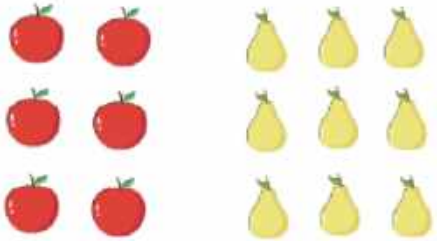
7. Sarah has 12 lollypops, Alex has 7 lollypops, and Jessie has 2 lollypops. Sarah eats 4 of her lollypops, Alex eats 2, and Jessie doesn't eat any. How many lollypops do they have left altogether?



Mark only one oval.

- 28
- 24
- 15
- 22

8. Lily picks 6 apples on Monday. On Tuesday she picks 9 pears. On Wednesday she eats 2 apples. On Thursday she eats 5 pears. How many apples and pears does she have left at the end of the week?



Mark only one oval.

- 8
- 7
- 9
- 12

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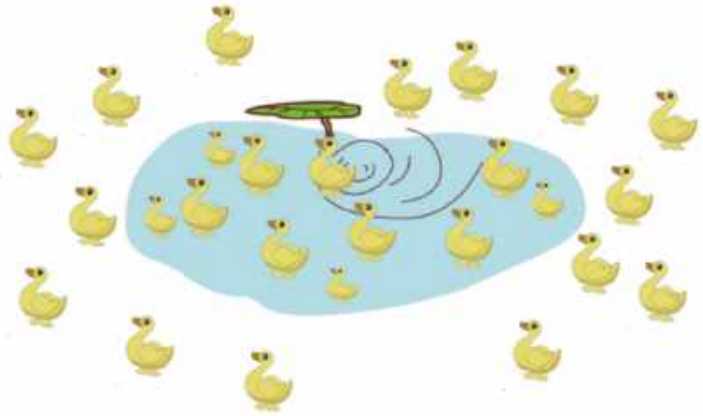
9. (*) There are 11 ducks swimming in a pond. 15 ducks are waiting at the side of the pond for their turn in the water. How many ducks are there in total?



Mark only one oval.

- 27
- 26
- 35
- 36

10. (**) There are 12 people on a bus. At the first stop 3 people get off and 7 get on the bus. At the second stop 4 people get off and 11 people get on. How many people are left on the bus after the second stop?

Mark only one oval.

- 28
- 24
- 23
- 13

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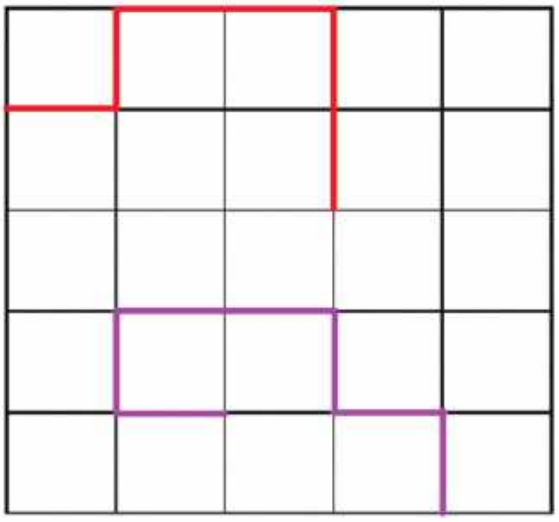
Comparing Weights and Lengths:

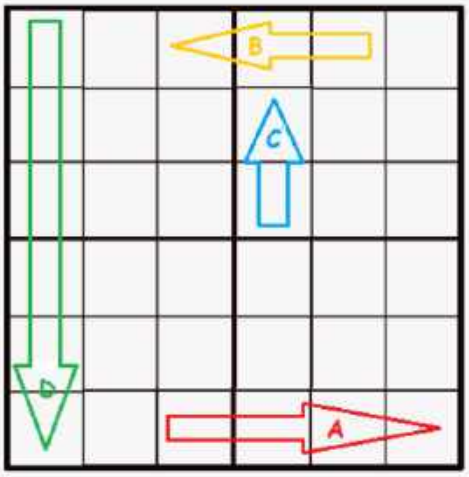
1. Can you work out which line is longer? *



Mark only one oval.

- Red Line
- Purple Line

2. Put the arrows, A, B, C, and D, in order of length, from the shortest to the longest. *



Mark only one oval.

- B C A D
- C B A D
- D A B C
- D A C B

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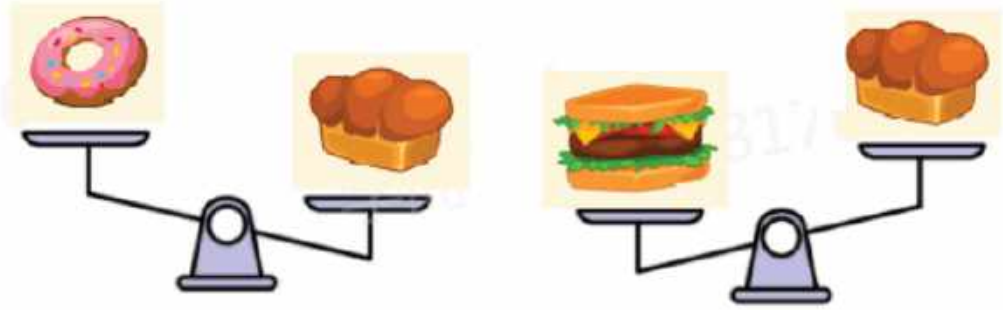
3. Which item of food is heaviest? *



Mark only one oval.

- Donut
- Bread
- Sandwich

4. Put the animals in order, from heaviest to lightest. *

Mark only one oval.

- Elephant, Lion, Giraffe
- Elephant, Giraffe, Lion
- Lion, Giraffe, Elephant
- Lion, Elephant, Giraffe

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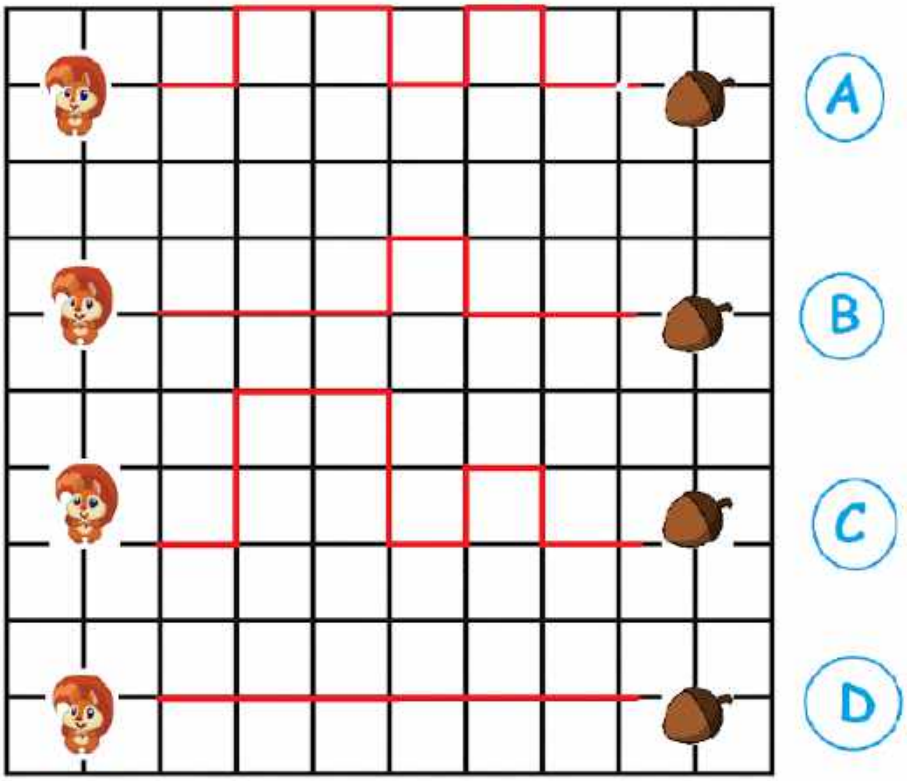
5. The squirrels are trying to reach their nuts. Which squirrel has found the shortest route? *



Mark only one oval.

- A
- B
- C
- D

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6. Some fruits are on the balance and they are of equal weights. Can you find which fruit is heavier?

A. ☐

B. ☐

Mark only one oval.

- ( ) Apple
- ( ) Pineapple

7. There are three animals. Sheep said: "Pig is heavier than me." Monkey said: "I am lighter than Sheep." Can you find which animal is the lightest one here?

A.

B.

C.

Mark only one oval.

- ( ) Sheep
- ( ) Monkey
- ( ) Pig

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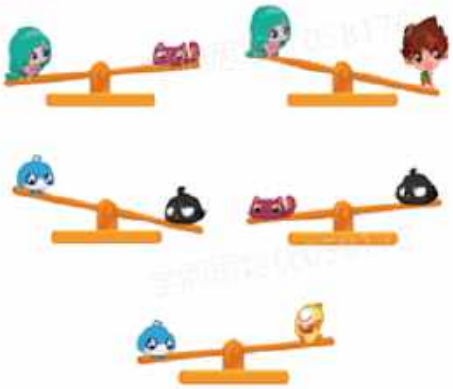
8. *Observe the picture. Which animal is the lightest?



A.

B.

C.

D.

Mark only one oval.

- ( ) A
- ( ) B
- ( ) C
- ( ) D

9. **Which type of alien is the heaviest?

Mark only one oval.

- ( ) Yellow Alien
- ( ) Blue Alien
- ( ) Pink Alien

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10. **Which type of alien is the lightest?

Mark only one oval.

- Yellow Alien
- Blue Alien
- Pink Alien

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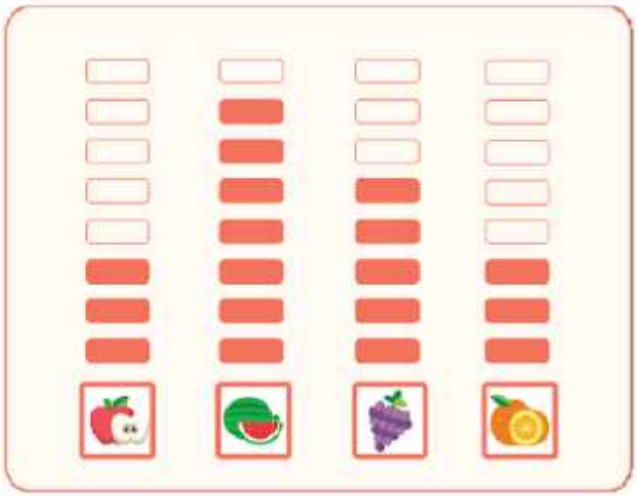
Bar Charts:

1. Look at the bar chart and then look at Table A and Table B. Which table matches the information in the bar chart?



A

Fruits				
People	3	7	5	3

B

Fruits				
People	3	6	5	3

Mark only one oval.

- Table A
- Table B

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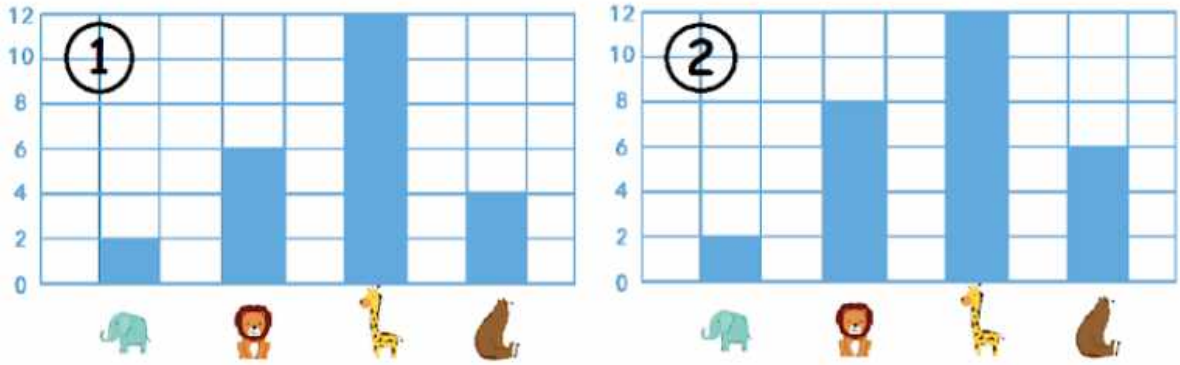
2. Look at the two bar charts. Which bar chart matches the information in the table?



Animals				
Amounts	2	8	12	6

Mark only one oval.

- ( ) Bar chart 1
- ( ) Bar chart 2

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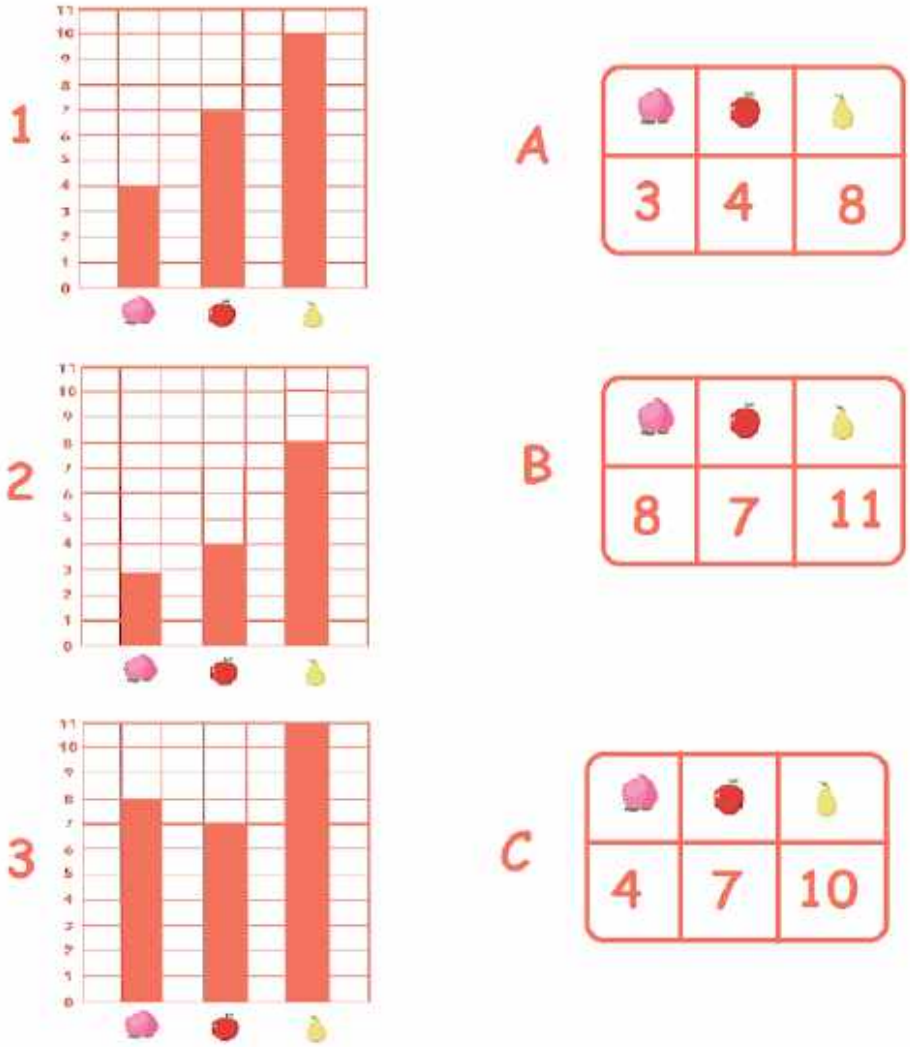
3. Match the bar charts (1, 2, 3) to the correct table (A, B C).



Mark only one oval.

- 1C, 3A, 2B
- 1C, 2A, 3B
- 1B, 2C, 3A
- 1B, 2A, 3C

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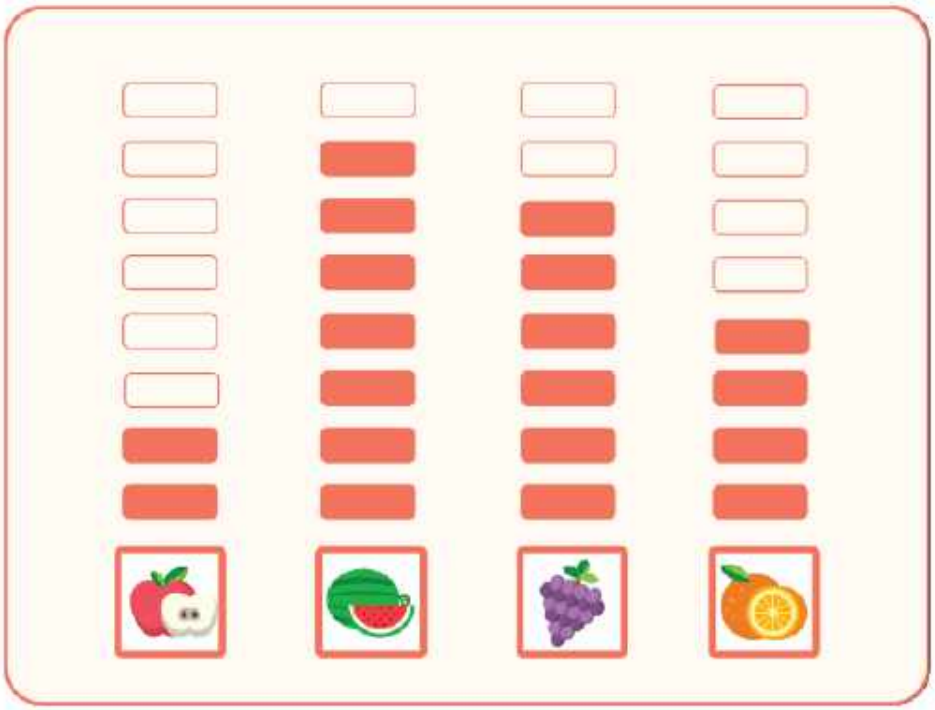
4. Look at the bar chart of student's favourite fruits. Can you calculate the total number of students who like watermelon and grapes?



Mark only one oval.

- 11
- 12
- 13
- 14

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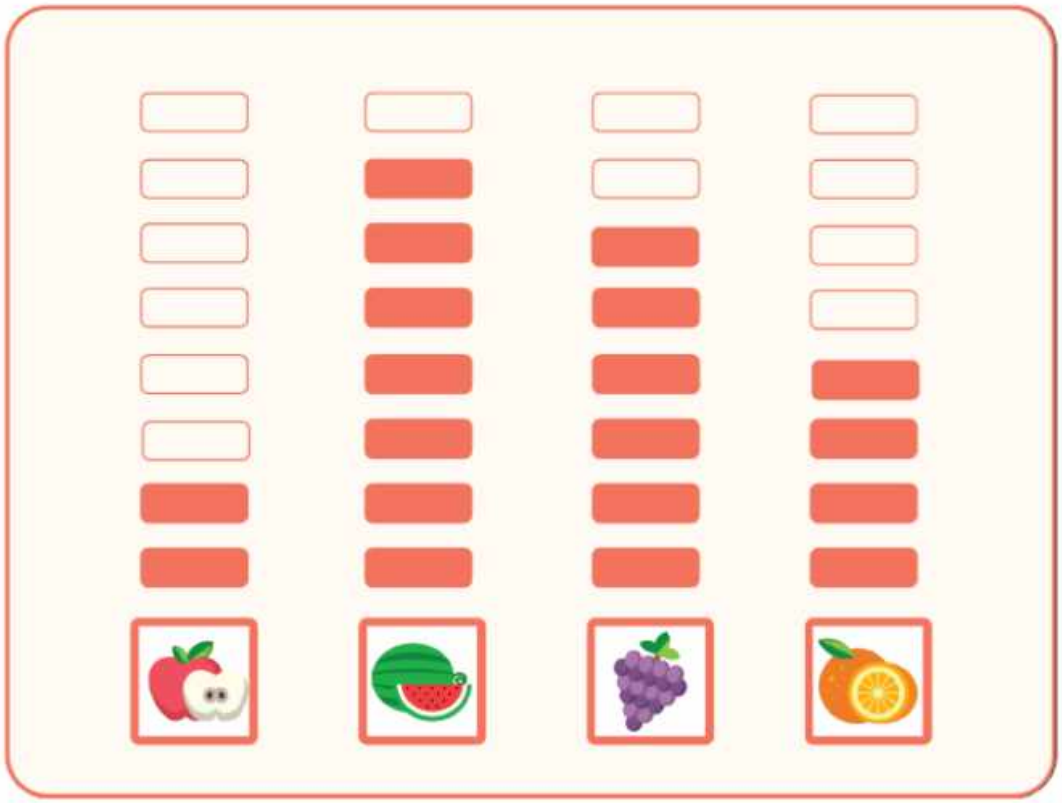
5. Look at the bar chart of student's favourite fruits. How many less oranges are there than grapes?



Mark only one oval.

- 1
- 4
- 3
- 2

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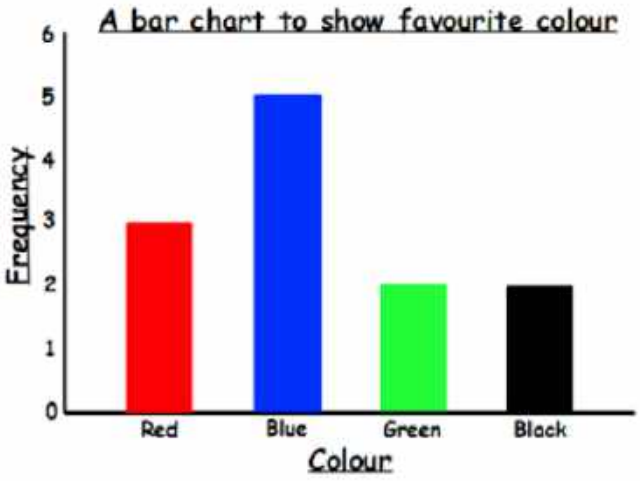
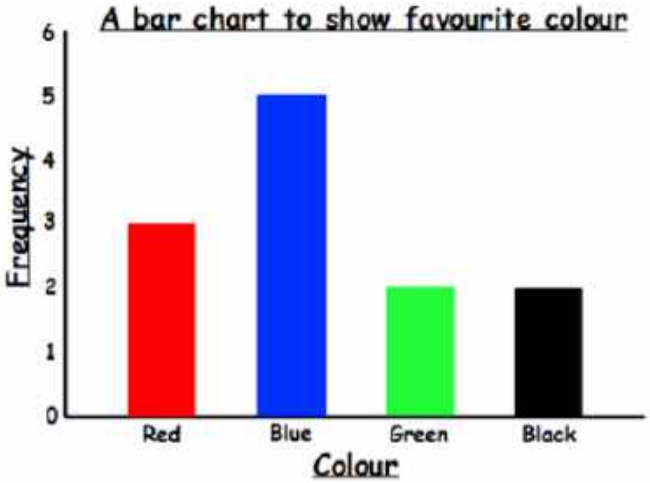
6. Look at the bar chart showing the favourite colour of the students in the class group. Can you calculate the total number of students in the group?



7. *Look at the bar chart showing the favourite colour of the students in the class group. Can you calculate the number of students who do NOT choose black as their favourite colour?



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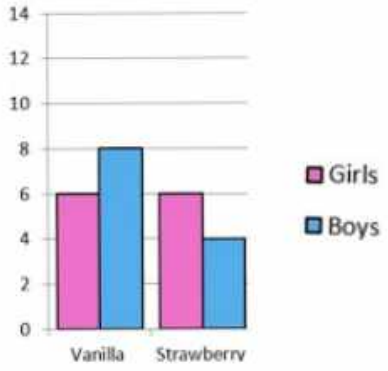
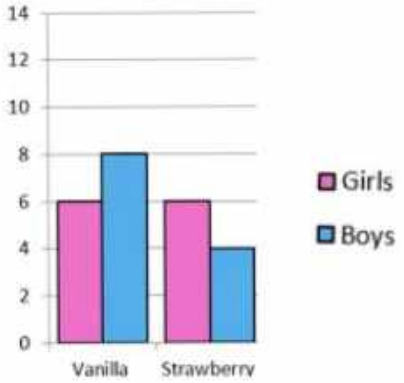
8. **The bar chart shows the favourite ice-cream flavour in the class group. Remember, this time, we have colours showing numbers of girls and boys picking each flavour. Can you calculate how many students are there in the class group?



9. ***The bar chart shows the favourite ice-cream flavour in the class group. Can you calculate how many more boys are there who like vanilla than boys who like strawberry?



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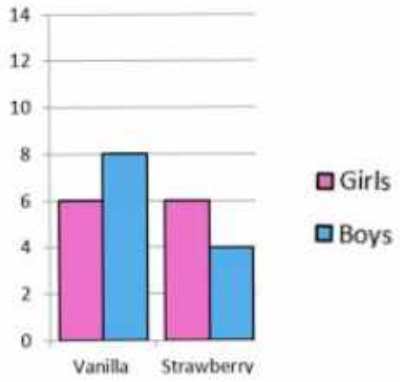
10. ***The bar chart shows the favourite ice-cream flavour in the class group. Can you calculate how many more students are there who like vanilla than students who like strawberry?



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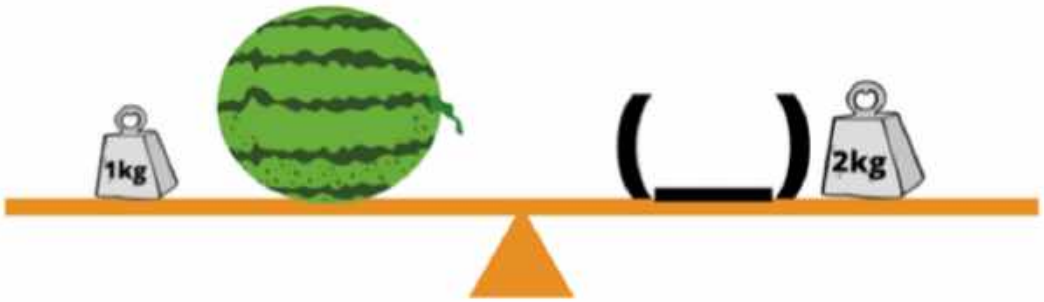
Balancing the Scales:

1. There are 4 weights on the desk. They are marked as 1g, 2g,5g and 6g respectively. How do we balance the scale with these 4 weights? *

Mark only one oval.

- Left: 1g, 2g ; Right: 5g, 6g
- Left: 1g, 2g, 5g; Right: 6g
- Left: 1g, 6g ; Right: 2g, 5g
- Left: 1g, 2g, 6g; Right: 4g, 5g

2. The watermelon weighs 7 kg. If there is a weight of 1kg and a watermelon on the left of the scale, how many weights of 2 kg do we need to put on the right of the scale to make it balanced? *



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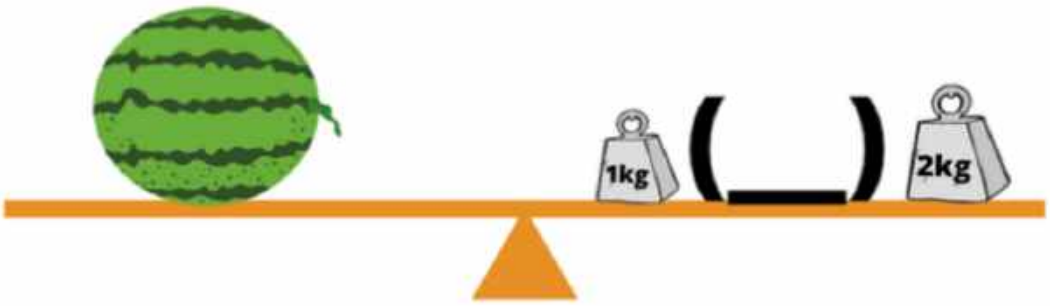
3. The watermelon weighs 7 kg and it is placed on the left of the scale. If there is a weight of 1kg on the right of the scale, how many weights of 2 kg do we need to put on the right of the scale to make it balanced? *



4. A red candy weighs 10 g and a blue candy weighs 5 g. If there are 2 blue candies and 1 red candy on the left of the scale, we need 3 weights of 5 g to make it balanced. *

Mark only one oval.

- True
- False

5. There is a rock of 5 kg on the left of the scale. In the classroom, we have some weights of 1 kg, 2 kg and 5kg. How many different ways of using the weights are there to make the scale balanced? You can use the weights more than once. *

Mark only one oval.

- 2
- 3
- 4
- 5

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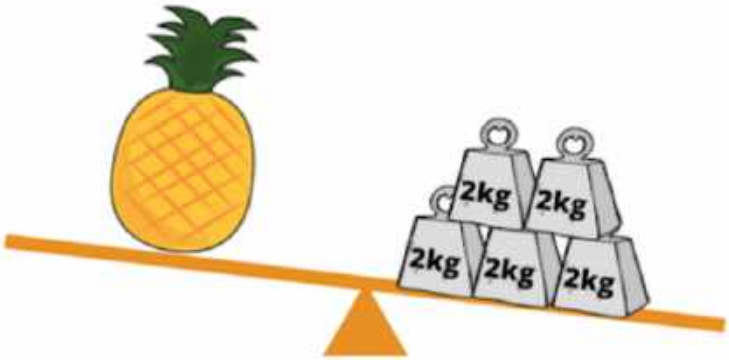
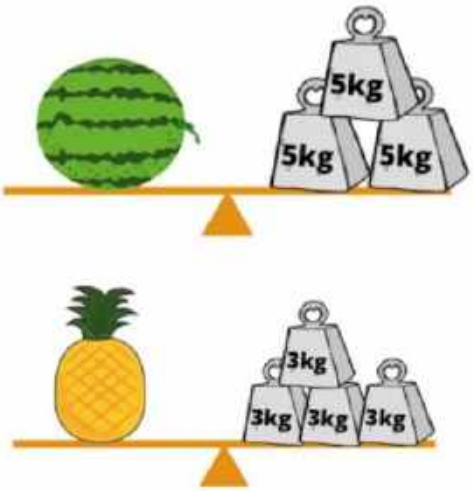
6. On the right of the scale, there is a pineapple weighing 4kg, and on the left there are 5 weights of 2kg each. How many weights do we need to remove to balance the scales?



7. On one scale, a watermelon is equal to three 5kg weights. On another scale, a pineapple is equal to four 3kg weights. Based on the information from the two scales, which fruit is heavier?



Mark only one oval.

- ( ) Watermelon
- ( ) Pineapple

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8. Based on the previous question, how much more does the heaviest fruit weigh?

Mark only one oval.

- 2 kg
- 3 kg
- 4 kg

9. If we have 1 red ball of 1 kg and 1 blue ball of 2kg, how many different weights can we measure using the balls we have?

Mark only one oval.

- 2
- 3
- 4

10. (*)If we if 2 red balls of 1 kg and 1 blue ball of 5kg, how many different weights can we measure using the balls we have? (Hint: the weights can be placed on either side of the scale.)

Mark only one oval.

- 3
- 5
- 6
- 7

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Patterns and Sequences:

1. Find the pattern and finish the sequence *

2, 8, __, 20, 26

2. Find the pattern and finish the sequence *

1, 11, 3, 12, 5, __, 7, 14

3. Find the pattern and finish the sequence *

2, 5, 9, 14, ___, 27

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4. *

20, 18, 15, 11, __, 0

5. Find the pattern and finish the sequence *

1, 15, 2, 17, 4, 19, ____, 21, 11

6. Observe the pattern and what should be in the 【first blank】?

1, 2, 3, 1, 4, 6, 1, 6, 9, 1, __?__, __?__, 1

7. Observe the pattern and what should be in the 【second blank】?

1, 2, 3, 1, 4, 6, 1, 6, 9, 1, __?__, __?__, 1

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8. Observe the pattern and finish the sequence.

(2,10) (6,6) (8,4) (1, ____)

9. Use the hint from the previous question, observe the pattern and finish the sequence.

1, 8, 4, 5, 3, 6, ___, 7

10. Observe the pattern and finish the sequence.

1, 2, 3, 5, 8, ____, 21

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Applied Number Comparisons:

1. Leah has 10 candies. Helen has 5 more candies than Leah. How many candies does Helen have? *

2. Pip has 12 books. Bud has 3 fewer books than Pip. How many books does Bud have? *

3. The black cat has 9 little fish, which is 3 more than the white cat. How many little fish does the white cat have? *

4. There are 15 flowers in Pip's garden, which is 4 fewer than in Bud's garden. How many flowers are there in Bud's garden?

5. There are 6 girls in the classroom, which is 2 more than the number of boys in the classroom. How many students are there in total?

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6. Pip has 20 bars of chocolates and Bud has 18 bars of chocolates. Pip ate 10 bars, so did Bud. How many more bars of chocolate does Pip have than Bud now?

_____

7. Pip is standing on the 3rd step of a stair and Bud is standing on the 10th step. If they both go upstairs by 33 steps, Pip is _____ steps below Bud.

_____

8. There are 3 apples in the white basket. There are 3 more bananas than apples. Overall, there is 1 more fruit in the white basket than in the brown basket. How many fruits are there in the white and brown basket in total?

_____

9. Pip can read 11 books in a month. Bud can read 4 more books than Pip. Birdie can read 7 fewer books than Bud. How many more books can Pip read in a month than Birdie?

_____

10. (**) There are 15 bottles of water in the classroom. Pip and Bid split them between themselves. Pip takes 5 more bottles than Bud. How many bottles does Bud have?

_____

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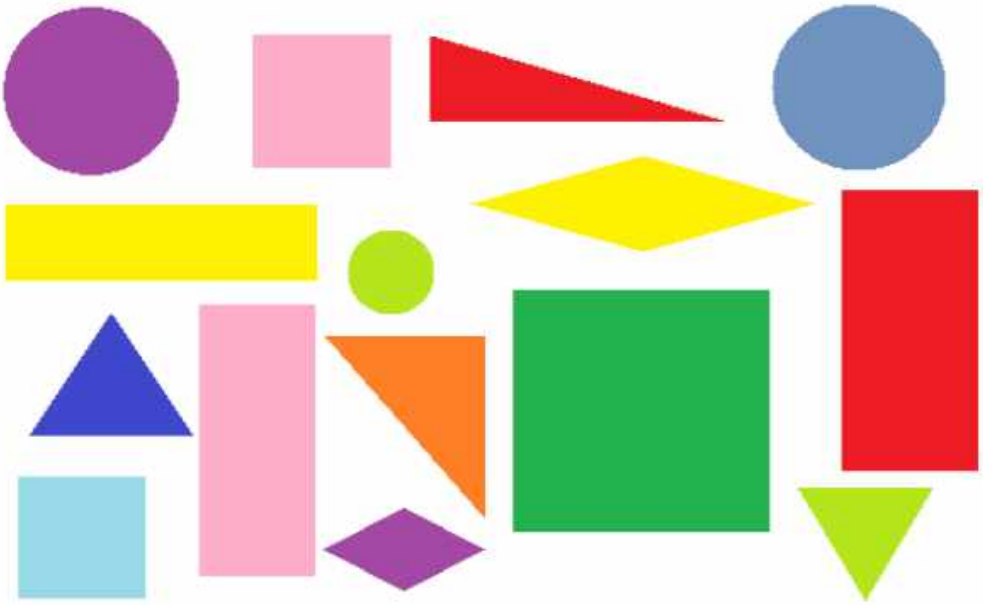
2D Shapes:

1. How many squares and circles are there in the picture? *



Mark only one oval.

- 5 Squares and 3 Circles
- 3 Squares and 5 Circles
- 3 Squares and 3 Circles
- 5 Squares and 5 Circles

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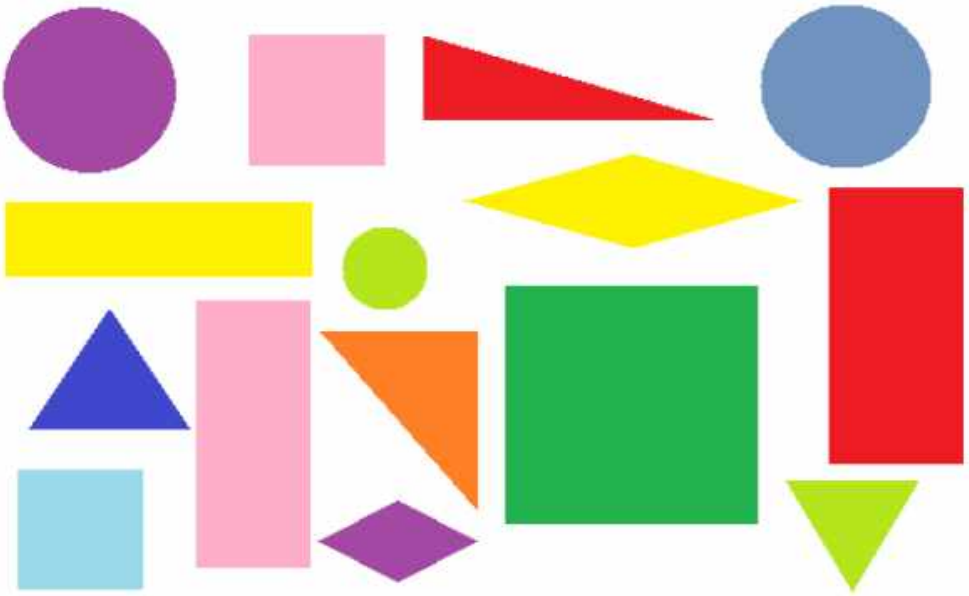
2. How many rectangles and triangles are there in the picture? *



Mark only one oval.

- 4 Rectangles and 4 Triangles
- 3 Rectangles and 4 Triangles
- 3 Rectangles and 3 Triangles
- 4 Rectangles and 3 Triangles

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3. How many circles, triangles, rectangles, and squares can you see in the picture? *

Mark only one oval.

- 2 circles, 5 triangles, 4 rectangles, 2 squares
- 2 circles, 6 triangles, 4 rectangles, 2 squares
- 3 circles, 5 triangles, 5 rectangles, 2 squares
- 3 circles, 6 triangles, 5 rectangles, 2 squares

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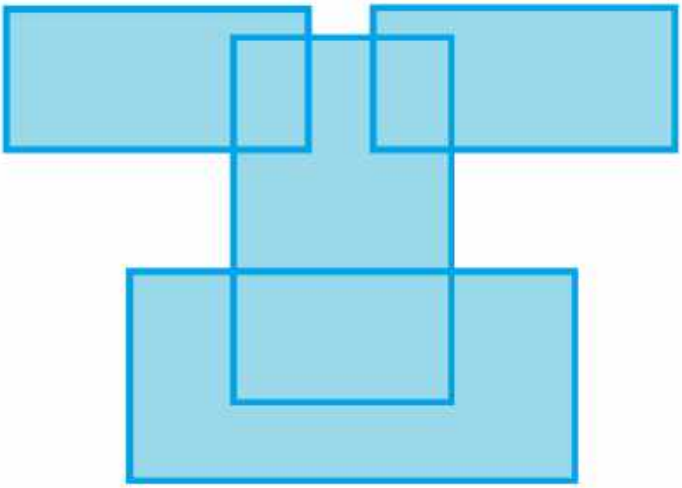
4. Pip has put a blanket over Bud's shape. What shape could it be? Pick two answers. *

Tick all that apply.

- [ ] Square
- [ ] Rectangle
- [ ] Triangle
- [ ] Circle

5. How many rectangles can you see in the picture? *



Mark only one oval.

- ( ) 8
- ( ) 6
- ( ) 4
- ( ) 7

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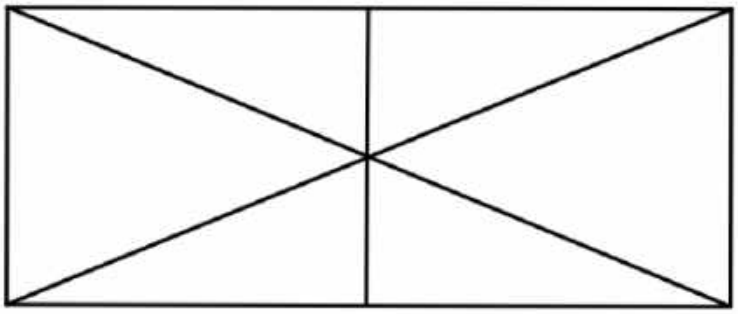
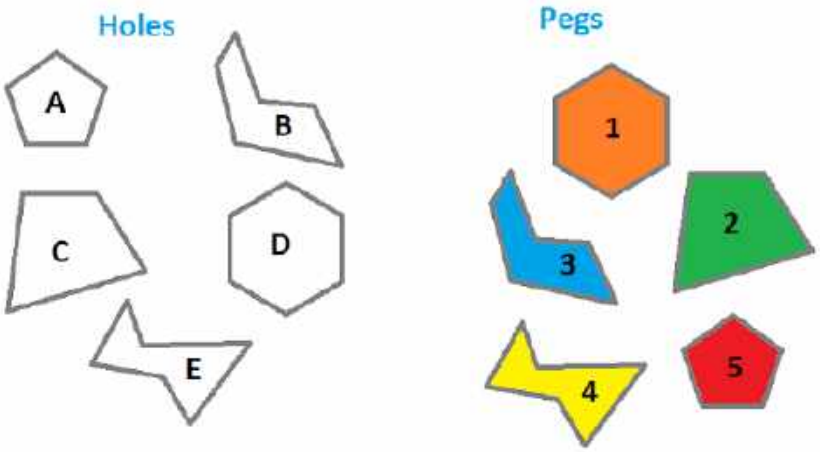
6. How many triangles can you see in the picture?



Mark only one oval.

- 12
- 14
- 15
- 16

7. Each peg fits into one hole. Match the pegs to their holes.



Mark only one oval.

- A5, B4, C2, D1, E3
- A5, B3, C2, D1, E4
- A1, B3, C2, D5, E4
- A1, B4, C5, D2, E3

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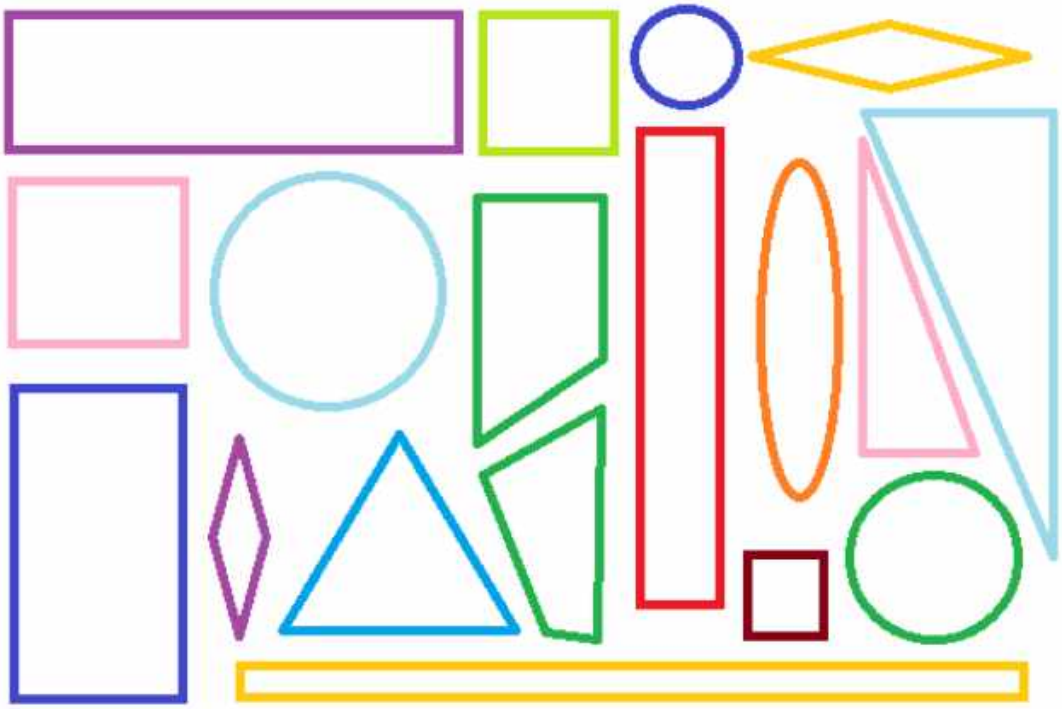
8. How many rectangles and squares can you see in the picture?



Mark only one oval.

- 4 rectangles, 3 squares
- 3 rectangles, 4 squares
- 5 rectangles, 3 squares
- 5 rectangles, 5 squares

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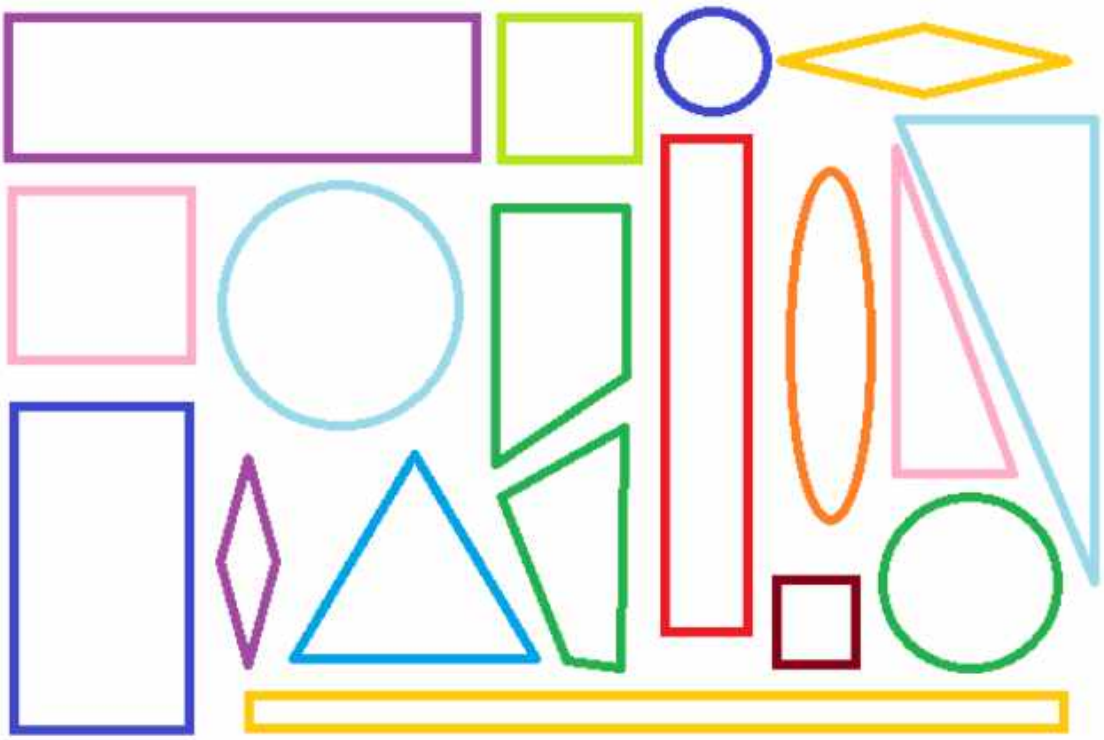
9. How many circles and triangles can you see in the picture?



Mark only one oval.

- 4 circles, 4 triangles
- 4 circles, 3 triangles
- 3 circles, 4 triangles
- 3 circles, 3 triangles

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10. Bud spilt some green paint over Pip's drawing of a shape. What shape could Pip's drawing have been? Pick three answers?

Tick all that apply.

- [ ] Circle
- [ ] Triangle
- [ ] Square
- [ ] Rectangle

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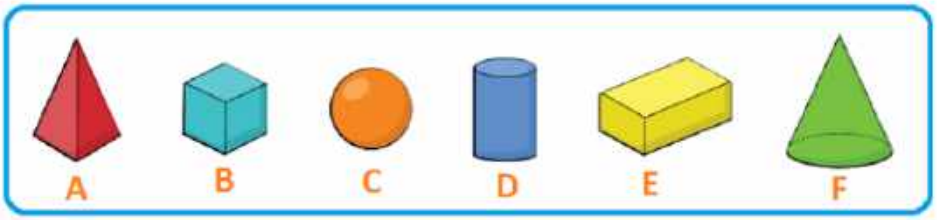
3D Shapes:

1. Can you match the 3D shape to its name? *



1. Cube 2. Cylinder 3. Cuboid 4. Pyramid
5. Cone 6. Sphere

Mark only one oval.

- A5, B3, C2, D6, E1, F4
- A4. B1, C6, D2, E3, F5
- A5, B1, C6, D2, E3, F4
- A4, B3, C6, D2, E1, F5

2. What 3D shapes can you see in the picture? Pick two answers. *

Tick all that apply.

- [ ] Cylinder
- [ ] Sphere
- [ ] Pyramid
- [ ] Cone

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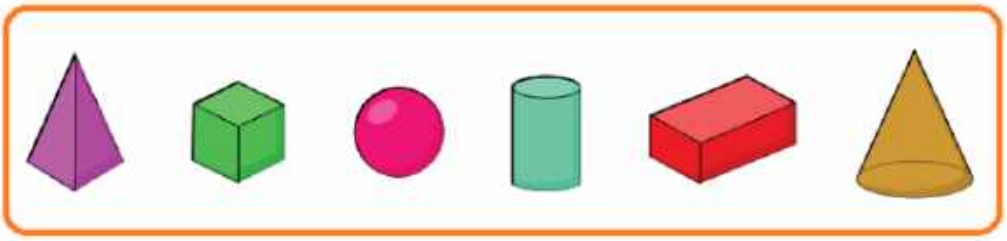
3. What 3D shapes can you see in the picture? Pick four answers. *

Tick all that apply.

- [ ] Cylinder
- [ ] Pyramid
- [ ] Cuboid
- [ ] Cone
- [ ] Sphere

4. How many of the shapes in the picture roll, and how many of them stack? (Hint: Some shapes might do both) *



Mark only one oval.

- ( ) 5 stack, 3 roll
- ( ) 4 stack, 2 roll
- ( ) 5 stack, 2 roll
- ( ) 4 stack, 3 roll

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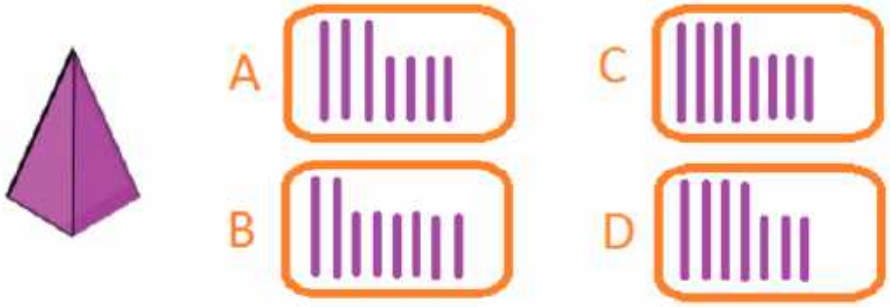
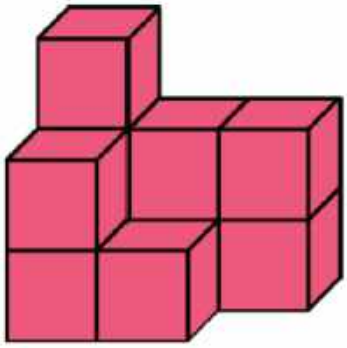
5. Which set of sticks can be used to make up the 3D shape in the picture? *



Mark only one oval.

- A
- B
- C
- D

6. How many cubes make up this 3D shape?



Mark only one oval.

- 7
- 8
- 9
- 10

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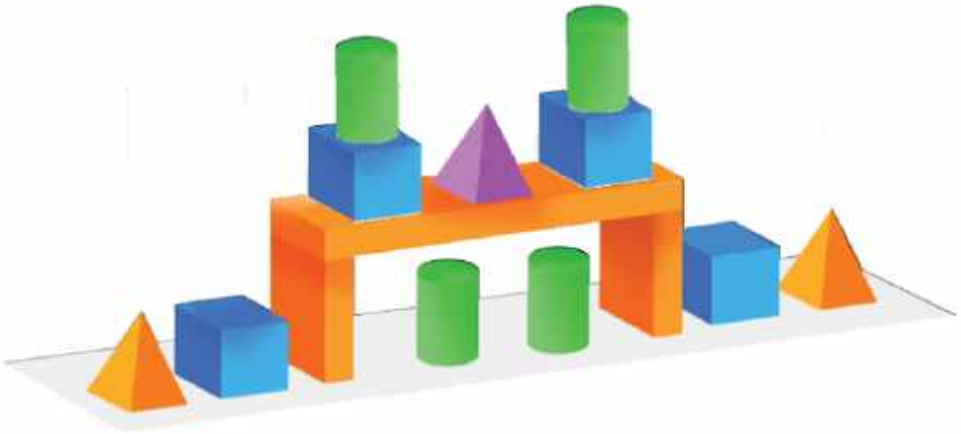
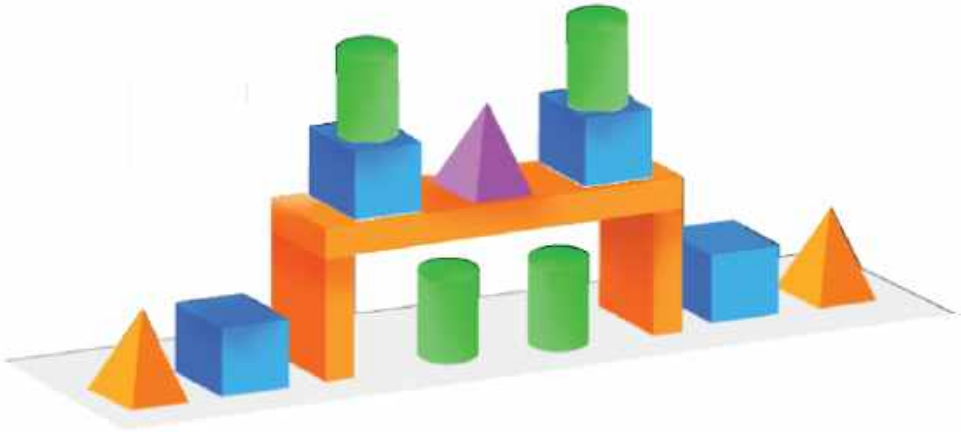
7. How many cubes and cylinders are there in the picture?



Mark only one oval.

- 4 cubes, 4 cylinders
- 4 cubes, 3 cylinders
- 3 cubes, 3 cylinders
- 3 cubes, 4 cylinders

8. How many cuboids and pyramids are there in the picture?



Mark only one oval.

- 4 cuboids, 4 pyramids
- 4 cuboids, 3 pyramids
- 3 cuboids, 4 pyramids
- 3 cuboids, 3 pyramids

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9. Look at all the objects below. How many of them roll?

Mark only one oval.

- 7
- 8
- 9
- 10

10. Look at all the objects below. How many of them stack?

Mark only one oval.

- 12
- 13
- 14
- 15

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Solutions:

Mental Maths:

1. 17 and 23
2. 5 and 17
3. 24 and 21
4. 6 and 9
5. 17 and 17
6. 16
7. 13
8. 5
9. 8
10. 15
11. 18
12. 3
13. 6
14. 8
15. 10

Word Problems:

1. 12
2. 4
3. 20
4. 12
5. 12
6. 8
7. 15
8. 8
9. 26
10. 23

Comparing Weights and Lengths:

1. Purple line
2. C,B,A,D
3. Sandwich
4. Elephant, Lion, Giraffe
5. D
6. Pineapple
7. Monkey
8. D
9. Yellow Alien
10. Blue Alien

Bar Charts:

1. Table A
2. Bar Chart 2
3. 1C, 2A, 3B
4. 13
5. 2
6. 12
7. 10
8. 24
9. 4
10. 4

Balancing the Scales:

1. Left: 1g, 6g
   Right: 2g, 5g
2. 4
3. 3
4. False
5. 4
6. 3
7. Watermelon
8. 3kg
9. 3
10. 5

Patterns and Sequences:

1. 14
2. 13
3. 20
4. 6
5. 7

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6. 8
7. 12
8. 11
9. 2
10. 13

Applied Number Comparisons:

1. 15
2. 9
3. 6
4. 19
5. 10
6. 2
7. 7
8. 17
9. 3
10. 5

2D Shapes:

1. 3 squares and 3 circles
2. 3 rectangles and 4 triangles
3. 3 circles, 6 triangles, 5 rectangles, 2 squares
4. Square, rectangle
5. 8
6. 12
7. A5, B3, C2, D1, E3
8. 4 rectangles, 3 squares
9. 3 circles, 3 triangles
10. Triangle, Square, Rectangle

3D Shapes:

1. A4, B1, C6, D2, E3, F5
2. Sphere, cone
3. Cylinder, pyramid, cone, sphere
4. 5 stack, 3 roll
5. C
6. 10
7. 4 cubes, 4 cylinders
8. 3 cuboids, 3 pyramids
9. 9
10. 13

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