1. It took Mary 50 days to read a 3000-page book. Every day, she reads 2 more pages than the previous day, how many pages did she read on the first day?
2. Angie had some stickers. If she gave 6 stickers to each of her friends, she would be short of 4 stickers. If she gave 4 stickers to each of her friends, she would have 10 stickers left. How many stickers did Angie have at the beginning?
3. If 5 students stay in a room of a youth hostel, there will be 14 students who do not have a room. If 7 students stay in a room, there will be 4 vacant beds. How many rooms does the hostel have? How many students are staying in the youth hostel?
4. A + B = 65, B + C = 74, C + A = 103, which is the smallest, A, B or C?
5. If    +   ♥ +  ♣ ♣ = 2003, where , ♥, and ♣ represent different digits. What is the sum of  and ♥?
6. Sarah had a total of 19 coins that were made up of 50 cents and 20 cents. If she exchanged all her 50 cents coins for 20 cents coins, she would have 40 coins. How many 20 cents coins did she have at first?
7. Following the pattern shown in the number sequence below, what is the missing number?

1, 8, 27, **?**, 125, 216

1. Steven has 22 hamsters and birds altogether. These animals have 64 legs in total. How many more birds than hamsters does Steven have?
2. There were 103 pupils. Every pupil shook hands with all the other pupils. If the same two pupils only shake hands once, how many handshakes took place?
3. There were 1025 more passengers in train A than train B. After 409 and 210 passengers got off train A and train B respectively, how many more passengers in train A than in train B?
4. If you subtract 72 from the triple of a number, the result is one third of the number. What is the number?
5. Mr Soh is 6 times as old as his daughter now. In 14 years’ time, their total age will be 63. How old is Mr Soh now?
6. Find the sum of all the odd numbers from 11 to 35.
7. Mary bought 3 books at $8 each. She then old them at $10 each. She bought another 8 books at $6 each and sold them at $5 each. Did Mary make money or lose money, and how much?
8. John went to the bank 5 days in a row. On each day, he deposited 3 times as much money as the previous day. On the 5th day, he deposited $1215. How much did he deposit on the first day?
9. We know that:
10. P is the sister of Q
11. R is the brother of S
12. Q is the mother of R
13. T is the father of S

Then, how is P related to S?

1. Which letter is the odd one out?

E, I, K, M, S, U, X

1. A bag of stickers was shared among 36 pupils. 9 of them gave all their stickers to the rest of the pupils. As a result, each of the rest pupils received 3 more stickers. How many stickers were there in the bag at first?
2. Palm trees are planted along a pavement at an equal distance of 5 meters away from each other. How far is the 5th tree to the 11th tree?
3. A total of 45 children were given some sweets. Each boy received 6 sweets and each girl received 5 sweets. The number of sweets that all the boys received is 6 more than the sweets all the girls received. How many girls were there?
4. The seats on a children merry-go-round are numbered in a sequence, 1, 2, 3, … and so on. On this merry-go-round, Peter was sitting on seat #11, exactly opposite Maria, who was sitting on seat #4. How many seats were there on this merry-go-round?
5. Mary bought a total of 26 apples and oranges for $28. She paid $2 for each apple and $2 for every 3 oranges. How many oranges did she buy?
6. Clara played a computer game in which she fired rockets at planes. For every rocket that hits an enemy plane, she gets 7 points. For every rocket that hits one of her own planes, she loses 2 points. Given that Clara fired 392 rockets and 65 of them didn’t hit any plane. At the end of the game, she scored a total of 1650 points, how many enemy planes did she hit?
7. In the following 12-digit number, the sum of every 3 consecutive digits is 15, what are the values of A and B?

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | A |  |  |  | B |  |  |  |  |  | 5 |

1. To celebrate Children’s day, a candy shopkeeper allows children to use every 3 candy wrappers to exchange for 1 candy. If Clara buys 72 candies, what is the largest possible number of free candies that she can get?
2. Mike has some money to buy either 20 apples or 80 oranges. If he wants to buy an equal number of apples and oranges, how many of each can he buy?

1. Sarah has just enough money to buy 5 watermelons and 52 apples. She also can use the same amount of money to buy 9 watermelons and 28 apples. If she wants to buy apples only, how many apples can she buy with the amount of money she has?
2. Tina went to Europe from 14th August to 26th October of the same year. How many days was she in Europe? Note that from..to..means both days are included.
3. 3 basketball and 4 pairs of badminton rackets cost $156. The cost of each basketball is 2/5 (2 over 5) the cost of each pair of badminton rackets. How much does each basketball cost?

1. Joy bought a chicken pie and a tuna pie. The chicken pie was three times the size of the size of the tuna pie. Joy ate 3/7 (3 over 7) of the chicken pie. His sister ate 1/6 of the tuna pie. What fraction of the two pies did Joy eat more than his sister?
2. Grace had $120 more than Henry. Every day, Grace would spend 3 times as much money as Henry. After 4 days, Grace and Henry were left with equal amount of money How much did Grace spend every day?
3. Uncle James is now 46 years old and Tom is 3 years less than half of Uncle James’ age. How many years later will Uncle James be twice as old as Tom?
4. Rose had 3 times as many shirts as shorts. After her mother bought her 6 new shorts, the number of shirts is 12 more than the number of shorts. How many shirts did Rose have at first?
5. There were 10 more chicken pies than beef pies on sale in a shop. After selling twice as many chicken pies as beef pies, there were 6 more beef pies than chicken pies left. How many chicken pies did the shop sell?
6. Tank A contains 1/3 litre of water. Tank B contains ¾ litre of water. How much water must one pour from Tank B into Tank A so that Tank B will contain 1/12 litre more water than Tank A?
7. Ben is 24kg heavier than John, and Ben is 30kg heavier than Cindy. Ben and John is two times heavier than Cindy. How heavy is Cindy?
8. In a fishing competition, 5 kids caught 50 fish in total. A is the winner and she got 12 fish. B and C caught the same number of fish and both are at 2nd place. D is the 4th place. E came in last, got only 6 fish. How many fish did B get?
9. The red ribbon is twice as long as the blue ribbon. The green ribbon is 2cm shorter than the blue ribbon. A red ribbon and two green ribbon together measure 16cm. How long is the blue ribbon?
10. Trees were planted at an equal distance apart from one another, starting from the beginning of the road. Between every 2 trees, there were 3 dustbins placed at equal distance apart from one another and apart from the trees. The distance between the 3rd dustbin and the 6th dustbin was 24m.
11. What was the distance between the 4th dustbin and the 11th dustbin?
12. Given that the stretch of road was 158m, how many dustbins were there from the beginning to the end of the road?
13. Study the table below

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Week | 1 | 2 | 3 | 4 | …. |
| Number of flowers | 1 | 8 | 15 | 22 | …. |

1. How many flowers are there in week 10?
2. If there are 729 flowers, how many weeks have passed?
3. Place number 1 to 8 (use each number once only) in the circles below so that the sums of the circles along the two diagonal lines and the sum of the 4 corner circles of each of the inner and outer squares are all 18.
4. Given that ABCD is a 4-digit number and there is no repeated digit, what does each letter below stand for so that the multiplication is true?

A B C D

X 4

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D C B A

A = \_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_ C = \_\_\_\_\_\_\_\_\_ D = \_\_\_\_\_\_\_\_\_\_

1. There was a flask filled with water. If the water is poured into 5 cups, there would be 500ml of water left. If the water is poured into 6 cups, there would be 150ml of water needed. What is the volume of the flask?
2. The area of the following 6 squares is 54 cm. What is the perimeter of the shape?
3. Alex, Ben and Daniel are running a 100-meter race. When Ben runs 4 meter, Alex runs 1 meter. When Daniel finished the race, Ben was 8 meters behind Daniel. How far did Alex run?
4. Two clocks, with their hour hands missing, have minute hands with run faster than normal. Clock A and B each gains 2 minutes and 6 minutes per hour, respectively. They start at noon with both minute hands pointing to 12. How many hours have passed before both minutes hands next point at the same time?
5. A clock loses exactly ten minutes every hour. If the clock is set correctly at noon, what is the correct time when the clock reads 2:30pm?
6. In a carpark, there were 5 times as many cars as motorcycles. If there were altogether 308 wheels, how many motorcycles were there in the carpark?
7. 10 pupils shared a bag of sweets equally. If 2 pupils received 86 sweets, how many sweets were left for the remaining pupils?
8. If each gift box in a store is sold at $8, the owner will make a profit of $270. If each gift box is sold at $4 instead, he will make a loss of $90. How many gift boxes are there? What is the cost price of each gift box?
9. What is the missing number in the following number sequence?

2, 2, 3, 5, 14, ?, 965

1. What is the missing number in the following number sequence?

2, 4, 6, 10, ?, 26, 42

1. Mr Chua bought some balloons for a group of children. If he gives 5 balloons to each child, he will have no balloons left. If he gives 2 balloons to each child, he will have 30 balloons left. How many children are there.
2. Ms Lim gave 1/6 of the pies she baked to her neighbor and ¼ to her aunt. If she has left with 35 pies, how many pies did she bake at first?
3. A sales person at a florist sold 100 blue and yellow roses, 90 red and blue roses and 80 yellow and red roses. What is the number of roses of each different color that he sold?
4. One shirt costs as much as 3 hats. Alice bought 25 shirts and 12 hats yesterday. She bought some shirts and 27 hats today with the same amount of money. How many shirts did she buy today?
5. David bought a total of 20 blue pens and green pens for $22. He paid $2 for each blue pen and $1 for every 2 green pens. How many blue pens and green pens did he buy?

Blue pens: \_\_\_\_\_\_\_\_

Green pens: \_\_\_\_\_\_\_\_\_

1. In a school, there are 7 teachers for every 252 students. If there are 468 students, how many teachers are needed?
2. If 6 men can paint a wall in 64 hours, find the number of men required to paint the wall in 48 hours.
3. Tap A can fill up an empty tank in 2 hours and Tap B can fill up the same empty tank in 4 hours. How long will it take to fill up the same empty tank if both taps are turned on at the same time?
4. Mr. Pang needs 24 hours to paint a house. If his partner Mr. Tan chips in for 6 hours, they will finish painting the house in 16 hours. How many hours will Mr. Tan take to paint the same house by himself?
5. Digits are placed in each of the boxes below. Repeated digits may be used. A and B stands for different digits below. The sum of any 3 consecutive digits is equal to 10. What is the value of A and B?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A |  |  |  | B |  |  | 1 | 4 |

A = \_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_\_\_\_

1. Find the digit in the ones place of 6 x 6 x 6 x 6 x ……x 6 x 6 – 1 (The number of 6 is 2009)
2. Two apples were given free with every purchase of 5 apples. Alice spent $18 and received 21 apples in total including the free ones. How many apples would she receive if she spent $12?
3. Edmund had 4 times as much money as Nancy. After Edmund spent $120 of his money on a watch and gave $30 to Nancy, they had an equal amount of money. How much money did Edmund have at first?
4. 2 similar pairs of track shoes cost as much as 3 similar pairs of track pants. If 4 similar pairs of track shoes and 3 similar pairs of track pants cost $324, what is the cost of 10 such pairs of track shoes?
5. Melvin had 1000 ml of water. When he poured it into 3 cups and 2 bowls, he had 100ml left. When he poured it into 2 cups and 1 bowl, he had 500ml left. How much water can one cup contain?
6. Tom takes 6 minutes to fold a crane. When Tom finished folding 111 cranes, the time was 6.04pm. What time did Tom start?
7. Michael has some marbles. If he packs these marbles into groups of 6, he will have 5 extra marbles. If he packs them into groups of 5, he will be short of 3 marbles. What is the minimum number of marbles that Michael may have?
8. There are 60 girls and 75 boys who joined the chess CCA. If the teacher is to split the boys and girls into equal groups, that is, the number of boys is the same across all groups and the number of girls is the same across all groups, how many groups can be formed? How many boys and how many girls are in each group?