

Alvin, Ben and Carl had the same number of pens. Carl gave $\frac{1}{2}$ of his pens to Ben. Then Ben gave $\frac{1}{2}$ of his pens to Alvin. Finally, after Ben gave 26 pens to Carl, he had the same number of pens as Carl.

- (a) How many pens did Carl have in the end?
- (b) How many pens were there altogether at first?

The ratio of the amount of money Janan received to the amount of money Priscilla received was 2:9. The ratio of the amount of money Priscilla received to the amount of money Simon received was 8:5. Then, Priscilla gave $\frac{1}{12}$ of her money to Janan, and Simon gave $\frac{1}{9}$ of his money to Janan. As a result, Janan had \$378 in the end.

- (a) What was the ratio of the amount of money Janan had to the amount of money Priscilla had in the end? (Give your answer in its simplest form.)
- (b) What was the total amount of money the three children had?

Rui Wen had 42 more beads than Shamila. Each of them gave away some of their beads to their friends. The number of beads Shamila gave away was $\frac{4}{7}$ of the number of beads Rui Wen had at first. The number of beads Rui Wen gave away was $\frac{2}{3}$ of the number of beads Shamila had at first. Both had an equal number of beads left. How many beads did Rui Wen have at first?

Cindy, Dick and Eddy had \$410 altogether. Cindy gave $\frac{1}{3}$ of her money to Eddy. Dick then gave $\frac{2}{5}$ of his money to Cindy. As a result, Dick had \$20 less than Cindy and \$30 less than Eddy. How much money had Cindy at first?

Roger had some fairy lights. He used $\frac{1}{3}$ of the fairy lights to decorate 15 small Christmas trees and $\frac{2}{5}$ of the fairy lights to decorate 6 big Christmas trees. He kept the rest. Each big Christmas tree had 14 more fairy lights than each small Christmas tree. How many fairy lights did Roger have at first?

Bossy Tan bought 80 handphones. He sold 10% of them at the price he had paid for. He sold $\frac{2}{3}$ of the remaining handphones at \$650 and the rest at a 15% discount of the selling price \$650. In the end, he earned \$1620. How much did Bossy Tan pay for one handphone?

During the Great Singapore Sale, Ravi, Johan, Meng and Emma shared the cost of a present. Ravi paid 50% of the total amount paid by the other 3 friends. Meng paid 60% of the total amount paid by Johan and Emma. Johan paid $\frac{1}{2}$ of what Emma paid. If Ravi paid \$24 more than Emma, how much did the present cost?

Ivan spent $\frac{1}{6}$ of his money on a pair of shoes and $\frac{1}{2}$ of the remainder on a cap. After that, his father gave him \$1292. If Ivan has twice of his original amount of money now, how much did he spend on the cap?

Panny and Sunny went for a dinner. Panny paid 40% of the bill and Sunny paid for the rest. After paying for the dinner, Sunny had $\frac{1}{5}$ of his money left and Panny had \$28 left. The ratio of the amount of money that Sunny had to the ratio of the amount of money that Panny had at first was 3:2. How much did Panny pay for the dinner?

Last month, May spent $\frac{1}{4}$ of her income on transport, $\frac{9}{20}$ on food and saved the rest. Her income was increased by $\frac{1}{10}$ in this month. She spent the same amount on transport but increased her saving by 30%. She saved \$780 this month.

- (a) How much did she spend on transport?
- (b) How much did she spend on food this month?

There are a total of 510 purple and red ribbons. After $\frac{2}{3}$ of the purple ribbons and 25% of the red ribbons were used to decorate the school hall, there were twice as many red ribbons as purple ribbons.

- (a) How many more purple ribbons than red ribbons were used?
- (b) How many ribbons were left in the end?

Karyn spent $\frac{1}{4}$ of her money on 14 stickers and 6 stamps. The cost of each stamp is 3 times the cost of each sticker. She bought some more of such stickers with $\frac{5}{6}$ of her remaining money. How many stickers did Karyn buy altogether?

Mary puts some money in boxes, A, B, C and D. The amount of money in box A is $\frac{2}{7}$ of the total amount of money in boxes B, C and D. The amount of money in box B is $\frac{2}{3}$ of the total amount of money in boxes A, C and D. The amount of money in box C is $\frac{1}{3}$ of the total amount of money in boxes A, B and D. If there is \$161 in box D, what is the total amount of money in the four boxes?

Kiren put all his stamps into 24 large albums and 18 small albums. Each large album can hold 18 more stamps than each small album. $\frac{2}{5}$ of his stamps were put into all the small albums and the rest were put into the large albums. How many stamps can be put into one large album?

Tasty Cake Shop baked some pies. $\frac{3}{7}$ of them were apple pies and the rest were chicken pies. After selling $\frac{2}{3}$ of the apple pies and 253 chicken pies, the shop had $\frac{1}{6}$ of the pies left. How many pies did Tasty Cake Shop sell?