54. Find the difference between the largest share and the smallest share when $160 is shared among three people in the following ratios.
    (a) $1 : 6 : 9$ **(b)** $2 : 5 : 13$ **(c)** $22 : 5 : 13$ **(d)** $32 : 11 : 37$

55. A sum of money is divided among Peter, Paul and Jane in the ratio $13 : 12 : 7$. Calculate how much Paul gets if the amount Peter gets more than Jane is
    (a) $78,   **(b)** $126,   **(c)** $360,   **(d)** $540.

56. An alloy consists of three metals, X, Y and Z. Calculate the ratio $X : Z$ given that
    (a) $X : Y = 2 : 3$ and $Y : Z = 5 : 4$,   **(b)** $X : Y = 5 : 7$ and $Y : Z = 13 : 10$,
    (c) $X : Y = 7 : 3$ and $Y : Z = 11 : 21$,   **(d)** $X : Y = 8 : 15$ and $Y : Z = 21 : 32$,

57. 60 kg of inferior vegetable oil is mixed with 135 kg of superior vegetable oil. Find the ratio in which the superior vegetable oil is mixed with the inferior vegetable oil, leaving your answer in its simplest form.

58. John is 1.68 m tall whereas his younger brother is 105 cm tall. Express the ratio of John's height to his brother's height in its simplest form.

59. 126 parts of pure gold are mixed with 42 parts of an alloy. Find the ratio of the total number of parts to the number of parts of
    (a) pure gold,   **(b)** alloy.
Hence, write down the ratio in which the alloy is mixed with pure gold.

60. The length and breadth of a hall are 28 m and 21 m respectively. If the ratio of its length to its height is $7 : 6$, find the height and the ratio of its breadth to its height.

61. The salaries of A and B are in the ratio $8 : 3$. The salaries of B and C are in the ratio $5 : 12$. Express the salaries of A, B and C in the form of a ratio.

62. Two types of rice are sold in the market. One of them is sold at 10 kg for $9.20 whereas the other type is sold at 5 kg for $6.90. Find the ratio of their prices.

63. A rectangle measures 32 cm by 24 cm. Given that its measurements are increased in the ratio $5 : 4$ to obtain a second rectangle, find the ratio of their
    (a) perimeters,   **(b)** areas.

64. Express 40 minutes after 5.55 p.m. using the 24-hour clock notation.

65. A train leaves Town A at 22 17 and arrives in Town B at 07 17 the next day. How long does the whole journey take?

66. A bus leaves Town X at 21 30 and arrives in Town Y at 08 00 the next day. Calculate
    (a) the time taken for the journey,
    (b) the average speed of the bus, given that the distance from Town X to Town Y is 651 km.

67. Peter was supposed to meet Paul one evening at 19 50. Paul arrived at the exact time but Peter arrived at a quarter to ten. Who arrived first? For how long did one wait for the other?

68. A car is parked in a car-park from 07 45 to 16 30 on the same day. Find
(a) the total time for which the car is parked,
(b) the parking fee if the rate of charges is $2.50 for the first hour and 80 cents for each half hour or part of a half hour thereof.

69. It takes a cyclist 44 minutes to cycle a distance of 11 km.
(a) How long will it take him to cycle a distance of
(i) 45 km,   (ii) 36 km,   (iii) 20 km?
(b) What is the speed of the cyclist in km/h?

70. Mr Chai leaves his house at 08 37 and travels by motor cycle to the railway station which 27 km away. If he arrives at the station 36 minutes later, find the average speed at which he travels in km/h. How long will he have to wait if the train, due at 09 42, is 11 minutes late?

71. A family travelled from Singapore to Penang. Shown below is a copy of their timetable.

From	To	Time Required
Singapore	Johor Baru	40 min
		30 min (breakfast)
Johor Baru	Kuala Lumpur	5 h 35 min
		55 min (lunch)
Kuala Lumpur	Ipoh	3 h 12 min
Ipoh	Penang	1 h 58 min

Given that they left Singapore at 05 30, when did they arrive in Penang?

Find the value of x in each of the following cases.

72. $3 : 9 = 4 : x$ **73.** $4 : 3 = x : 6$ **74.** $5 : 11 = 10 : x$

75. $x : 5.7 = 8 : 12$ **76.** $14 : 9 = 7 : x$ **77.** $12 : 25 = x : 5$

78. If 20 m^2 of flooring cost $36,
(a) find the cost of
(i) 25 m^2;   (ii) 55 m^2, of flooring.
(b) what area of the same flooring can be bought for
(i) $63,   (ii) $75.60?

79. 12 ceramic tiles cost $32.40.
(a) Find the cost of
(i) 15 tiles,   (ii) 80 tiles.
(b) How many tiles can be bought for
(i) $86.40,   (ii) $48.60,   (iii) $162,   (iv) $118.80?

80. A bus company charges $1.35 a kilometre to charter a bus which carries 54 children. How much should each child be charged if the distance to be covered is 50 km?

81. My car travels 128 km on 12 litres of petrol. How far do I expect it to travel on a full tank of 30 litres?

83. A motorist plans to travel 1273 km. If petrol costs $1.18 per litre and his car travels 19 km on 1 litre of petrol, how much will he need to spend on petrol for the trip?

84. A telephone bill consists of a monthly rental fee of $12.50 and charges resulting from the number of calls made at 2 cents per call. In a particular month, Miss Chen made 493 calls. How much was her bill? In another particular month, Mr Li paid a bill of $20.06. How many calls did he make in that month?

85. It costs 9 tourists $1620 to stay at a hotel for 4 days. Find
(a) the cost of staying at the same hotel for 6 days for 15 tourists,
(b) the number of days 10 tourists can stay at the hotel for $2250.

86. A train left Town A at 08 45 and arrived at Town B at 15 10.
(a) How long did the journey take?
(b) Find the distance between Town A and Town B given that the speed of the train was 108 km/h.

86. A motorist starts travelling at 23 17 on a 172-km journey. At what time will he arrive at his destination given that he travels at an average speed of 48 km/h?

87. If light can travel 31 times around the world in 4 seconds, how many times can it circle the world in 10 seconds?

88. A man eats 200 g of rice a day and he has enough rice to last him 35 days. How long would the stock of rice last him if he were to eat 250 g of rice a day.

89. A motorist starts to travel on a 272-km journey at 11 13. At what time will he reach his destination given that he travels at an average speed of 64 km/h. He leaves at 17 55 for the return journey and arrives at the starting point at 23 35. Calculate the time taken and the average speed for the return journey.

90. A rectangular brass sheet of length 1.5 m and breadth 75 cm weights 7.2 kg. Find the area, in m², of another similar sheet of brass weighing 12.8 kg.

91. A man travelling by car at an average speed of 70 km/h completes a journey in 54 minutes. On his return journey, he travels at an average speed of 45 km/h.
(a) How long does the return journey take?
(b) If he begins his outwards journey at 09 55 and rests for 40 minutes before making his return journey, at what time does he arrive at the initial starting point?

92. 45 men working 8 hours a day can finish a project within a given time. Five men unable to report for work. How long should the rest work a day to finish the project on time?

93. Given that 224 hours of work need to be done to complete a project.
(a) How long will it take 4 men, each working an 8-hour day to complete the project?
(b) If each of them is paid $7.50 per hour, how much will it cost to employ them altogether?
(c) How many hours of overtime must they put in per day if the project to be completed in 4 days?
(d) Given that the overtime rate of payment is $1\frac{1}{2}$ times as much as the regular hourly rate, find the cost of the project now.