

WORD PROBLEM HOMEWORK ANSWERS**COMPLETE THE FOLLOWING PROBLEMS USING THE FORMULAS GIVEN**

1. On the expressway, cars and buses can travel with a constant acceleration and their speeds can be worked out using the formula $v = u + at$. Find
- (a) v when $u = 5$, $a = 3$ and $t = 20$,
 - (b) u when $v = 30$, $a = 4$ and $t = 5$,
 - (c) t when $v = 0$, $u = 15$ and $a = -3.75$.

(a) 65**(b) 10****(c) 4**

2. Triangles have an area represented by A in the formula $A = \frac{1}{2}bh$. Find

(a) A when $b = 18$ and $h = 30$,

(b) h when $A = 40\frac{1}{2}$ and $b = 6\frac{3}{4}$.

(a) 270**(b) 12**

3. The future amount, F , of an investment at the end of an interest period is given by the formula $F = P\left(1 + \frac{RT}{100}\right)$, where P is the principle, R is the interest rate and T is the period of investment. Find

(a) F when $P = 1000$, $R = 3.5$ and $T = 7$,

(b) P when $F = 910$, $R = 6$ and $T = 5$,

(c) T when $F = 1136$, $P = 800$ and $R = 12$.

(a) 1245**(b) 700****(c) 3.5**

4. The formula for converting temperatures given in degrees Celcius to degrees Farenheit is $F = \frac{9}{5}C + 32$.

On a particular day, the temperature in London was 50°F and the temperature in Paris was 7°C . Which city had the higher temperature?

London**COMPLETE THE FOLLOWING PROBLEMS CREATING YOUR OWN FORMULAS**

5. Nadira bought some cotton shirts and three times as many cotton tees. A cotton shirt costs \$20 and a cotton tee costs \$12. If the total bill was \$112, how many of each did she buy?

2 cotton shirts and 6 cotton tees

6. Mrs Pang gives her three children a total allowance of \$45. If Li Chen gets twice as much as Mei Chen and Soo Chen gets \$5 more than Li Chen, how much is Soo Chen's allowance?

\$21

7. A mother is 24 years older than her son. In 6 years' time, she will be twice as old as her son. What are their present ages?

18 years and 42 years

8. A teacher is four times plus three years the age of her student. If the teacher was five times as old as her student a year ago, find their present ages.

7 years and 31 years

9. The tens digit of a number exceeds the units digit by 2. The sum of the digits is $\frac{1}{7}$ of the number. What is the number?

42

10. The sum of the digits of a two-digit number is 9. If the digits are reversed, the new number is $\frac{3}{8}$ times the original number. Find the number.

72

11. In a netball competition, Team A was ranked first followed by Team B and Team C. The points they obtained formed three consecutive even numbers, which adds up to 54. Find the points obtained by each of the teams.

16, 18, 20

12. A man travelled from town P to town Q at an average speed of 75 km/h. On his return journey, he travelled at an average speed of 60 km/h. If the total travelling time is $4\frac{1}{2}$ hours, find the distance between the towns.

150 km

13. John and Ben each spends a fixed amount of money every day but the amount that John spends is 50¢ more than Ben. John gets \$30 pocket money and Ben gets \$24 pocket money. Both spend all their pocket money within the same number of days. How much does John spend every day?

\$2.50