① The length and the breadth of a rectangle is 120cm and 80 cm respectively.

(a) Find the area.

(b) Write the area in scientific notation

② Round off 5.76 to

(a) 1st decimal place

(b) closest whole number

⑤ Which even number is 76?

⑦ How much is $\frac{3}{8}$ of Rs. 40 ?

⑨ If the perimeter of a square is 20cm,

(a) find the length of a side.

(b) find the area.

③ (a) Find the value of 1.5 × 0.02.

(b) Write the value above (a) in scientific notation.

④ Find the first and the second terms of the number pattern which has the general term $2n-1$.

⑥ Solve and write the answer in the simplest form .

$$\frac{3}{4} + \frac{1}{4} + 1$$

⑧ find the perimeter of

8cm   10 cm.

⑩ Area of a square is 64cm².

(a) Find the length of a side.

(b) If the square is a side of a cube, find the total surface area of the cube .

11) Simplify $\left(\frac{1}{2}-\frac{1}{4}\right) \div \frac{3}{8}$

12) If $x=2$, $y=-3$ find the value of $2x-y$.

13) An item bought at Rs. 200 is sold at Rs. 250.

(a) Find the profit.

(b) Find the profit percentage.

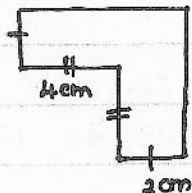14) An item marked Rs. 500 is sold with a 4% discount. Find the selling price.

15) Simplify $\frac{18}{100} \times 50\,000 \times 2$

16) If the annual interest rate is $r\%$, find an equation for the interest I for an amount of P for 1 year.

17) What is the interest for Rs. 30 000 for 12% interest rate for 1 year?

18) Simplify $(a+x)(a+x)$

19) Find the perimeter of

4cm

2cm

20) $\frac{8}{5}$ of $\frac{5}{8}$ Simplify.

)(i) Prove that the general term of 7, 10, 13, 16, ... is $3n+4$. (3 marks)

(ii) Find the 17th term of this number pattern. (3 marks)

(iii) Which term is 67? (3 marks)

(iv) Find the first 3 terms of the pattern of $5n+1$. (3 marks)

(2)(i) Write the answer in the simplest form

$$\left(\frac{3}{4} - \frac{2}{5}\right) \div 1\frac{3}{4}$$

(3 marks)

(ii) A man spends $\frac{3}{7}$ of his salary for food, $\frac{2}{5}$ for clothing and. $\frac{1}{7}$ for travelling. Then the rest of the salary which is Rs.1000, he deposits it at a bank.

(ii) Turn the fractions he spent for food, clothing and travelling as a single fraction. (3 marks)

(iii) Turn the amount he deposits at the bank as a fraction (2 marks)

(iv) Find his total salary. (2 marks)

(3)(i) An electric iron has its cost price at Rs.800. When it is sold, the shop keeper claims 10% profit. Find the selling price. (3 marks)

(ii) An item bought at Rs.400 is sold at R480. Find the profit percentage. (3 marks)

(iii) When a radio is sold at Rs.4800, the shop keeper gets a profit of 20%. What was the price the shop keeper bought it at? (3 marks)

(iv) The marked price of an item is Rs.28 000. At the point of selling, a 12% discount is offered. What is the selling price? (3 marks)

(4)(i) Nimal borrowed Rs.7500 and paid back Rs.8200 and redeemed himself from the loan. What was the interest he paid? (4 marks)

(ii) Prageeth deposits Rs.80 000 at a bank which pays 15% interest per year. What is the total amount Prageeth gets at the end of 2 years? (4 marks)

(iii) Rs.2500 has to be paid for Rs.12 500, as the interest for 1 year. What is the interest rate? (4 marks)

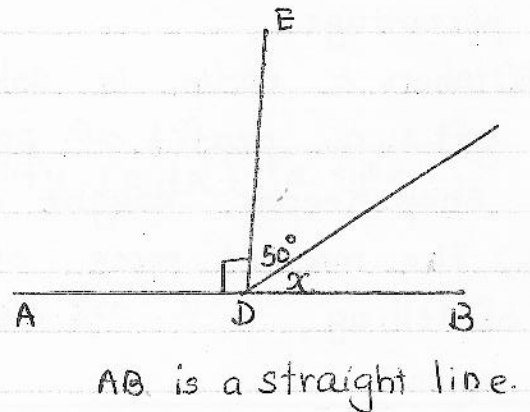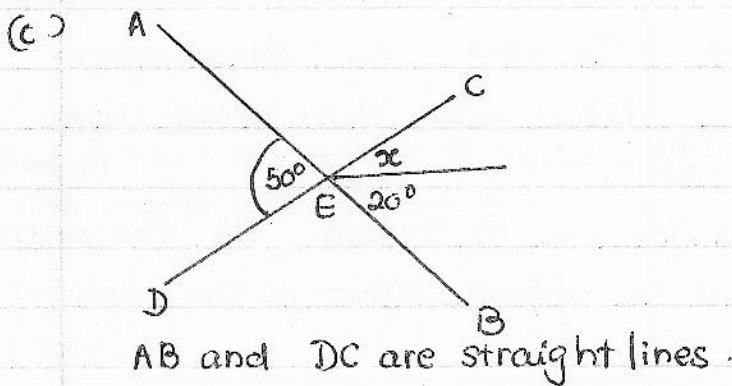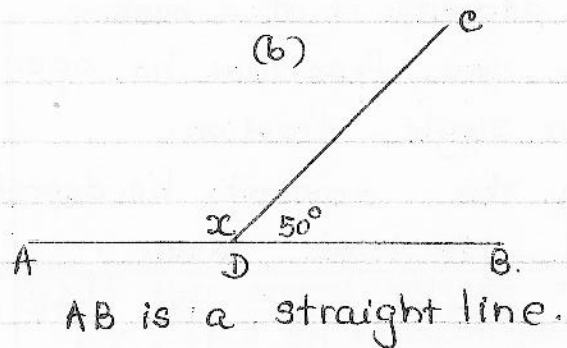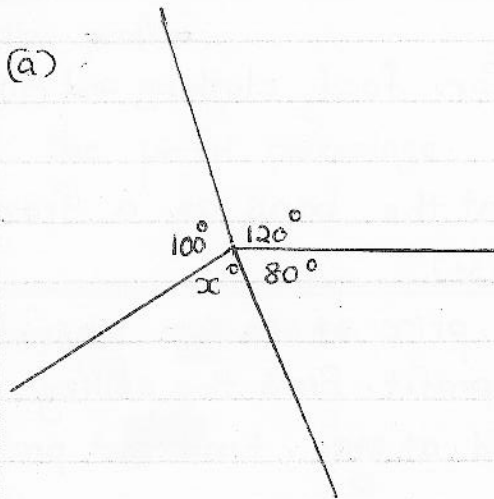(5)(i) $x = 2$, $y = (-3)$, find the value of the below expressions.

(a) $3x + 2y + 5$ (b) $5xy - 2y$,

(ii) Simplify the expressions.

(a) $(x+3)(x+1)$ (b) $(x-2)(x-3)$

(c) $(a+2)(a-5)$ (d) $(a+3)(8-a)$ ($2 \times 6 = 12$ marks)

(6) Find the value of x in each diagram.

(a)

$100°$ $120°$

$x°$ $80°$

(b)

x $50°$

A   D   B.

AB is a straight line.

(c)

$50°$

E x $20°$

AB and DC are straight lines.

$50°$

A   D x B

AB is a straight line.

($3 \times 4 = 12$ marks)