1) Change the following Hindu Arabic numerals to Roman Numerals:

a) ~~IMMM~~ 2758

b) 424

2) Change the following Roman Numerals to Hindu Arabic numerals.

a) CMXLV

b) MMDXLVII

c) MMMCCCXCVII

3) Evaluate:

a) $99 \div (12-3) \times 9$

b) $9 + 15 \div 3 \times 2$

c) $48 \div 2^3 \times 10$

d) $10 + 5^3 \div 25 \times 2^2$

e) $\dfrac{(25 \times 6 \div 3)^2}{15^2 - 5^2}$

f) $\sqrt{\dfrac{4^3 - 32 \div 4}{8 + 10^3 \div 8 - 119}}$

g) $\sqrt{196} \div \sqrt{49}$

h).

4) a) Find the quotient of 756 and 18

b) Find the sum of 73402 and 18098

c) Find the product of 725 and 38

d) Find the difference of 4382 and 397

5) Rewrite with-out parenthesis to illustrate using the distributive property:

a) $x \times (a+b)$.

b) $14 \times (4.3 - 3.6)$

c) $z(a+b-c)$

6) Rewrite with parenthesis using the distributive property:

a) $12 \times 3.4 + 12 \times 2.6$

b) $a \times b - a \times c$

7) Evaluate :-

a) $27 \overline{)2336}$ b). $64 \overline{)15692}$

8). Use the distributive law to factorise & evaluate

a) $12 \times 3.4 + 2.6 \times 12$

b). $37 \times 15 + 13 \times 15$

9). Write a mathematical expression for the following:

a). Eight cubed is greater than 14 squared

b). Sixty Seven and ninety five one hundredths is approximately equal to sixty eight.

c) The square root of four cubed is not equal to the difference of ten and three.

Answers:-

1) a) MMDCCLVIII   b) CDXXIV

2) a) 945   b) 2547   c) 3397

3) a) $99 \div (12-3) \times 9$
   $= 99 \div 9 \times 9$
   $= 11 \times 9 = 99$

b) $9 + 15 \div 3 \times 2$
   $= 9 + 5 \times 2$
   $= 9 + 10 = 19$

c) $48 \div 2^3 \times 10$
   $= 48 \div 8 \times 10$
   $= 6 \times 10 = 60$

d) $10 + 5^3 \div 25 \times 2^2$
   $= 10 + 125 \div 25 \times 4$
   $= 10 + 5 \times 4$
   $= 10 + 20 = 30$

e) $\dfrac{(25 \times 6 \div 3)^2}{15^2 - 5^2}$
   $= \dfrac{(150 \div 3)^2}{225 - 25}$
   $= \dfrac{(50)^2}{200} = \dfrac{2500}{200}$
   $= 12\frac{1}{2}$

f) $\sqrt{\dfrac{4^3 - 32 \div 4}{8 + 10^3 \div 8 - 119}}$
   $= \sqrt{\dfrac{64 - 8}{8 + 1000 \div 8 - 119}}$
   $= \sqrt{\dfrac{56}{8 + 125 - 119}}$
   $= \sqrt{\dfrac{56}{14}}$
   $= \sqrt{4} = 2$

g) $\sqrt{196} \div \sqrt{49} = 14 \div 7$
   $= 2$

4) a) $756 \times 18 = 13608$ (use long mult)
   4a) $756 \div 18 = 42$ (can use long div).

b) $73402 + 18098$
   $= 91500$

c) $725 \times 38 = 27550$

d) $4382 - 397 = 3985$

5) a) $x \times a + x \times b$
   b) $14 \times 4.3 - 14 \times 3.6$
   c) $z \times a + z \times b - z \times c$

6) a) $12(3.4 + 2.6)$ ~~12×6~~ ~~$72!$~~
   b) $a(b-c)$

7) Do long division!
   a) $86\frac{14}{27}$ b) $245\frac{12}{64}$

8) $12(3.4 + 2.6)$
   $= 12 \times (6) = 72$
   b) $15(37 + 13)$
   $= 15 \times 50 = 750$

9) a) $8^3 > 14^2$
   $512 > 196$
   b) $67\frac{95}{100} \div 68$
   c) $\sqrt{4^3} \neq 10 - 3$
   $\sqrt{64} \neq 7$
   $8 \neq 7$.