

Tender Heart High School, Sec. - 33B chd.

Class: VIII

Subject: Mathematics

Teacher: Deepa

Revision questions:

(Ch-5: Sets, Ch-9: Ratio and proportion,
Ch-10: Direct and Inverse Variation, Ch-11: Time and
Work, Ch-14: Factorisation)

Quest 1: a) Describe the following in 'Roster form'

$$(i) A = \{x : x \in W, x \geq 8\}$$

$$(ii) B = \{x : x \text{ is a factor of } 120\}$$

$$(iii) C = \{x : x \text{ is a prime factor of } 75\}$$

$$(iv) D = \{x : x = \frac{1}{n+1}, n \in W, n \leq 5\}$$

b) Describe the Set in 'Set builder form'

$$(i) E = \{4, 6, 8, 9, 10, 12, 14, 15, 16, 18\}$$

$$(ii) F = \{9, 16, 25, 36, 49, 64, 81, 100\}$$

$$(iii) G = \{0\}$$

$$(iv) H = \{3\}$$

c) Are the given pairs of sets are equivalent or not?

$$(i) A = \{x : x \leq 5, x \in N\} \quad B = \{\text{Vowels of English alphabet}\}$$

$$(ii) D = \{x : x \in I, -3 < x < 3\}$$

$$E = \{x : x \text{ is a factor of } 16\}$$

Quest 2: a) Divide ₹ 9100, among A, B, C in the ratio $1 : \frac{2}{3} : \frac{1}{6}$

b) A man reduces his weight in the ratio 9:6, find his original weight if his weight now is 84 kg

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- c) (i) Mean proportional between 7 and 28 is _____.
(ii) Third proportional to 9 and 12 is _____.

- Quest 3. a) If 15 men can reap a field in 35 days, in how many days will 21 men reap the field?
b) If 18 binders bind 900 books in 10 days, how many binders will be required to bind 660 books in 12 days.

- Quest 4. a) 'A' can do a piece of work in 12 days and 'B' alone can do it in 16 days. They worked together on it for 3 days and then 'A' left. How long did B take to finish the remaining work?
b) A, B and C can do a piece of work in 30 days, 60 days and 20 days
(i) In how many days can B and C together complete the work?
(ii) In how many days A, B and C altogether can complete the work.
(iii) In how many days C alone can complete the work if A and B together left the job after 3 days (of working together, A, B, C)

- Quest 5. a) Write all the formulas of "Algebraic Expression" (Algebra)
b) Factorize
(i) $50x^3y^4 - 125xy^2$
(ii) $a(a+b-c) - b c$
(iii) $16(a+b)^2 - 25(x-y)^2$
(iv) $3x^2 + 11x + 10$

