STEPPING STONE SCHOOL (HIGH)

CLASS : VIII

Subject: Mathematics **Date: 5/5/2020**

Topic: Percentage **Time limit:40min**

Worksheet No.: 8

[Copy the questions and solve them on a sheet of paper date wise. Keep the worksheets ready in a file to be submitted on the opening day.]

Some common examples of word problems.

1.)Increase the no 60 by30%

Solution:

New number=(1+ 30/100) of 60

(100+30/ 100)×60 = 130/100×60= 13/10 ×60

=78

2) On decreasing the number by 18,it becomes 697. Find the number.

Solution:

Let the original number = x

Then, new number=(1-18/100) of original number.

697=(1-18/100)×x

697=(100-18)

×X 100

697=82×X

100

X=697×100

82

X=697×50

41

X=17×50

X=850

Hence the original no is 850.

3) Out of 8000 candidates, 60% were boys. If 80% of the boys and 90% of the girls passed the exam, find the number of candidates who failed.

Solution:

Total number of candidates = 8000

Number of boys =60% of 8000
60/100 × 8000 = 60×80 =4800
Number of girls = 8000 – 4800 = 3200
Number of passed boys = 80% of(number of girls)
90/100× 4800 = 80×48= 3840
Number of passed girls= 90% of (Number of girls)
$\frac{90}{100} \times 3200 = 90 \times 32 = 2880$
number of passed candidates
=3840+ 2800 = 6720
Hence, Number of failed candidates
= 8000 - 6720 = 1280

4)Pratibha reduced her weight by 15%. If now she weighs 59.5kg , what was her earlier weight ?
Solution:
Pratibha reduced her weight = 15%
And her present weight = 59.5kg
Let her total weight = 100
Reduced weight = 100 – 15 =85%
85% of her original weight = 59.5kg
Her original weight = $\frac{59.5 \times 100kg}{85}$ = 0.7 × 100 = 70kg

Her earlier age was 70 kg.

5) An alloy contains 40% copper , 32% nickel and rest zinc . Find the mass of zinc in one gram of the alloy.
Solution:
Let zinc as x%
The formula is 40%+ 32%+x% = 100%
72% + x%= 100.
Therefore X%= 100% - 72%
= 28%
Therefore mass of Zn is 28 %
Convert into kg
28/ 100 = 0.28 g
Mass of zinc is 0.28g

PRACTICE PROBLEMS

1) **Decrease the number 750 by 10%. [Hint : same as eg 1 in place of (+ do -)]**
2) **What number when increased by 15% becomes 299 ? (hint: same as example 2 in place (- do +)**
3) **Mr. Khanna spent 83% of his salary and saved RS 1870. Calculate his monthly salary ?(hint : Savings 100 -83% = 17%, find 17% of 1870)**
4) **Balance diet should contain 12% of proteins, 25% of fats and 63% of carbo-hydrates. If a child needs 2600 calories in his food daily, find in calories the amount of each of these in his daily food intake.[hint: find individual % with 2600]**

5) **In an exam, ¼ of the students failed both in English and Maths , 35% of students failed in Maths and 30% in English**
   - **(i) Find the Percentage of students who failed in any of the subjects.**
   - **(ii) Find the Percentage of students who passed in both the in both subjects.**
   - **(iii) If the number of students who failed only in English was 25, find the total number of students. [hint: students failed in English is 25, 3x/10 – x/4= 25.]**
6) **In a straight contest, the loser polled 42% votes and lost by 14400 votes. Find the total number of votes polled. If the total number of eligible voters war 1 lakh , find what percentage of voters did not vote.**
7) **Find the Percentage of pure gold in twenty two- carat gold, if 24 carat gold is 100% pure.[Hint, 22-carat gold contains 22 parts of 24 parts.**
   Percentage of pure gold in it =($\frac{22}{24}$× ×100)% =91 $\frac{2}{3}$ %)
8) **A's income is 60%more than that by B. By that percentage is B's income less than A's?[Hint: let B's income be RS 100]**

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