**NUMERACY AND DATA ANALYSIS PRACTICE SHEET 2**

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| 1 | Give examples of   1. Integers 2. Fractions | a) Any whole positive, negative numbers including zero. 10, 7, 5, -15, -3, 0 etc.  b) Not a whole number; 1/4, 1/2, 3/8 etc. |
| 2 | Explain what is meant by followings and provide examples   1. Numerator 2. Denominator | a) Numerator is the top number of a fraction.  3/4 ; 3 is the numerator  b) Denominator is the bottom number of a fraction.  3/4; 4 is the denominator |
| 3 | Apply cancelling down rule for followings and present the fractions in smallest possible numbers ( show calculations): | a) 27/36 = 9/12 = 3/4  b) 20/30 = 10/15 = 2/3  c) 18/54 = 9/27 = 3/9 = 1/3 |
| 4 | Recall the changing denominator rule:   1. ; Convert denominator to 18 2. ; Convert denominator to 42 3. ; Convert denominator to 48 | a) =  b) =  c) = |
| 5 | Write examples of Mixed fractions and Improper fractions.  Change the following improper fraction into mixed numbers: | Mixed fractions are combination of whole number and improper fraction 2  Improper fractions are fractions where numerator is higher than denominator 22/3  a) = 1 (Trick - Divide 11 by 8; Number of times is whole number and left over is numerator)  b) = 8  c) = 8  (This can be further reduced down to 8 ) |
| 6 | Convert the following mixed numbers into improper fractions : | a) 34/12 (Multiply denominator by whole number and add numerator to the answer)  b) 17/6  c) 23/3 |
| 7 | Add following fractions: | a) = 8/20 + 15/20 = 23/20  (can be 1 3/20)  b) = 2/4 + 3/4 = 5/4 (can be 1 1/4)  c) = 9/12 + 3/12 = 12/12 = 1 |
| 8 | Subtract following fractions: | a) = 9/12 - 5/12 = 4/12 (or 1/3)  b) = 3/8  c) = 17/18 - 6/18 = 11/18 |
| 9 | Divide following fractions: | a) = = 40/20 = 4/2 = 2  b) = = 12/4 = 3  c) = = 25/8 (Or 3 ) |
| 10 | Multiply following fractions: | a) = 5/48  b) = 2/15  c) = 6/36 = 1/6 |
| 11 | 1. In company A, if 30% of employees are going to be under redundancy list out of 5000 employees, how many numbers actually are under redundancy? 2. 13.5% out of 2500 students have got distinctions for mathematics. What is the exact number of students who got distinctions? | a) × 5000 = 1500 employees  b) × 2500 = 337.5 (Round up) 338 students |
| 12 | 1. If student A, B & C have received marks in the ratio of 4:6:8 out of 100 for Maths subject. What exact marks each student received? 2. If the car manufacturer is producing type A, B & C in ratio of 2:5:1 and the total number of car production is 8000. Calculate the total number of production in each type. | a) A = × 100 = 22.22 B = × 100 = 33.33  C = × 100 = 44.44  b) A = × 8000 = 2000 B = × 8000 = 5000  C = × 8000 = 1000 |