A] "Who Am I" Solve these problems.

1. I am the only power with a base from 1 through 10 and an exponent from 1 through 10 that has the same value when my base and exponent exchange places. Who am I?

2. If you add 10 to me, you get a number more than 5 less than 20. If you subtract 5 from me you get a number which is not zero. I am not 49:7. Who am I if I am a two-digit multiple of both 2 and 3.

3. I am the remainder you get when you choose a prime number greater than 3; square it; then add 17 and divide by 12. Who am I?

4. I am between 500 and 1000. I am a multiple of 10 and I am divisible by 3 but not by 4. Not one of my digits is prime and their sum is less than 15. Who am I?

5. Make up another similar "Who Am I?" type problem and give it to a neighbour to solve.

B] Square - No Matter How You Look at it

Illustrate each of the following:

a) nine square centimetres
b) nine centimetres squared
c) nine centimetre-squares
d) nine centimetre square

C] Painting Solids

Imagine that you have a rectangular prism, a triangular prism, and a cylinder. All have the same base area and the same height. Your task is to paint these figures (all surfaces).

a) Which shape would require the most paint?
b) Which would require the least?

D] Ratios

A calculator is 11 cm long, 6 cm wide and 7 mm thick. What do the following ratios express?

a) 6:11
b) 110:7
c) 110:60:7

E] How many angles are in the figure?