2006 Grade Three Competition – Full Solutions
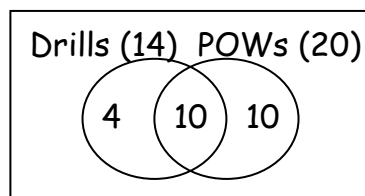
1) D To do this question quickly, use regrouping: 16 + 24 + 16 + 24 + 16 + 24 + 16 + 24 = 40 + 40 + 40 + 40 = 160

2) C $2 \times 7 = 14$

3) B To get 5 pieces, he will have to make 4 cuts.

4) C 12 is greater than 9 and less than 13.

5) B 150+240+90=480 which is approximately 500

6) B All flew away except 12 that stayed.

7) D All did not skate over the jump, BUT 8 did. Therefore, 8 kept skating.

8) B $10 – 6 + 3 – 1 = 6$

9) C If his average on 2 drills is 15, then he must have 2 x 15 = 30 marks total. To get an average of 16 he will need 3 x 16 = 48 marks total. This means he needs 48 – 30 = 18 marks on his third drill.

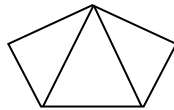10) D 14 + 20 = 34. Since there are only 24 students in the class, there are 34 – 24 = 10 students who like both.

Once the diagram is filled out, we can see that there are 4 students who like drills only.

11) A Each numerator and denominator is being multiplied by 2. The next fraction will be $\frac{32}{48} \times \frac{2}{2} = \frac{64}{96}$.

12) C The layers represent perfect squares of $1^2 + 2^2 + 3^2 + 4^2 + 5^2 = $ 1+4+9+16+25=55.

13) A The fifth prime number is 11. (2, 3, 4, 7, 11)

14) C (pages not read) + (pages read) = last page read
18+30=48

15) C $9 = 900¢ therefore, 900 dandelions were sold

16) B There are 8 two's: 2, 12, 20, 21, 22, 23,24.

17) C Red needs to be at one end and so does yellow. This leaves green and blue on the inside. Blue is to the right of green.

18) B 90÷3=30 90÷6=15 90÷9=10

19) A Sum: 6+4=10 and the difference: 6-4=2   Six is the larger number.

20) B There was a total of 7 apples. Seven apples cost $14 or $2 each. Vern paid $8 for his apples.

21) D 8x4=32 Adam started with 32 marbles.

22) C From 3:45 to 4:45 is one hour. From 4:45 to 5:30 is 45 minutes. They had 1 hour and 45 minutes to play.

23) C Since we are only counting from the first stop to the last stop, we add 2 + 7 = 9km. (Not from her house)

24) C In each metre of ribbon, there are two ½ metre pieces. In two metres of ribbon, we have 2 x 2 = 4 pieces. With those 4 pieces, plus the 1 extra ½ metre piece, we have a total of 5 pieces of ribbon measuring ½ metre.

25) C Because the denominators are the same, you simply need to order the numerators: 3,5,6,8.

26) A If the full box weighs 11 kg and the oranges in it weigh 10 kg, each empty box weighs 1 kg.

27) C 26+3-5+7=31 There are only 30 days in April. Joe conducted his research on May 1.

28) C A pentagon has five sides. 3 triangles can make a pentagon. Example:

29) B Give each vehicle 2 wheels. 15x2=30
There are 12 extra wheels. 42-30=12
Give the extra wheels, in pairs, to the cars. There are 6 cars.
15-6=9 motorcycles.

30) D The smallest number of quarters Ann can have is 2 which equals 50¢. Bill has 5 dimes, Chad has 10 nickels and Dan has 50 pennies; for a total of 2+5+10+50=67 coins.