2007 Grade Four Competition Solutions

1) **C** 12 + 18 + 23 + 7 = 30 + 30
= 60

2) **B** A hexagon has 6 sides.

3) **B** 3:30pm - 3 hours = 12:30pm;
12:30 – 1 more hour = 11:30am on Friday.

4) **C** Each term increases by 11 so the next term is 65 + 11 = 76.

5) **B** Since Anika started reading at the top of page 8, she did **not** read the first 7 pages. So she must have read 37 – 7 = 30 pages.

6) **A** There are four interior angles in a rectangle (they are each 90°).

7) **C** The statement can be re-written as: "She borrowed all of them from her friends except for 14". This means that 14 of the video games don't belong to her friends.

8) **A** The equation is: 7 – 9 + 4 = 2. So his birthday is Sept. 2nd.

9) **C** Each group of 5 x 2 = 10. Since there are three groups of ten, we get 10x10x10 which equals 1000, or 10^3.

10) **A** The height of 1 dime is approximately 1 mm, so the height of 10 dimes will be 10 mm.

11) **C** Using order of operations, you have:
3 + 24 – 7 = 20

12) **D** If each person arm-wrestled with every other person once, you would multiply 15 x 14. But this counts the number of people wrestling (2 per match). 15 x 14 ÷ 2 =105 matches.

13) **A** If you take out the second "not" then the sentence would read: "Do not do your homework". But there is another "not" in the original sentence, so it would mean the opposite which is: "Do your homework".

14) **B** 732cm ÷ 10 = 73.2 decimetres

15) **B** The product of 5 and 4 is 5 x 4 = 20.
The difference between 5 and 4 is 5 - 4 = 1.
20 + 1 = 21.

16) **A** 1999 was not a leap year. There are 31 days in January and 28 days in February.
31+ 28 = 59 days, so 4 days after that (59 + 4 = 63) is March 4th.

17) **D** 5 minutes x 24 hours = 120 minutes.
120 minutes is 2 hours.

18) **C** $\frac{10!}{6! \times 4!} = 210$ pathways

19) **A** Carmen will need to know the surface area of the present because the wrapping paper will cover the surface of the box.

20) **D** 150mm = 0.15m; 11.5 cm = 0.115 m; 0.0004 km = 0.4 m
Since Todd jumped 0.89 m, he jumped the farthest.

21) **C** The first shape is a triangle (3 sides) with a hole in it.
The second shape is a square (4 sides) with a hole in it.
The third shape is a pentagon (5 sides) with a hole in it.
Continuing the pattern, the fourth shape is a hexagon (6 sides) with a hole in it.

22) **A** If all animals were chickens, there would be 50 x 2 = 100 legs. Since there are 148 legs, you have 148 - 100 = 48 extra legs. This means there are 24 extra pairs of legs. This means that there are 24 cows.

23) **B** Divide all of the items and the price by 5, and you get:
1 hamburger + 1 fries + 1 pop = $7.
Multiply by 2, and you get:
2 hamburgers + 2 fries + 2 pop = $14.

24) **C** Matt can feed 6 ÷ 3 = 2 horses in one hour. Together, Zoe and Matt can feed 6 + 2 = 8 horses in one hour.
32 ÷ 8 = 4 so it will take them 4 hours to feed 32 horses.

25) **C** Half of the squares will be black. 8 x 8 = 64 and 64 ÷ 2 = 32.

26) **A** Four-fifths of the cards are Magic. The question also tells us that there are 44 Magic cards.
Therefore 44 = four-fifths.
So we know that one-fifth = 44 ÷ 4
= 11 Yu-Gi-Oh cards

27) **B** 38 isn't prime.
83 is prime and 8 + 3 = 11 is also prime.
97 is prime but 9 + 7 = 16 which isn't prime.
123 isn't prime.

28) **B** If everyone gets one pappadam, there will be 24 – 18 = 6 left over. In order to give each child another piece, the 18 children will have to divide 6 pappadams.
18 ÷ 6 = 3 so each child will get one plus a third.

29) **B** There are $6^2 = 36$ total possibilities. The following 5 possibilities will give a sum of six: 1 + 5, 2 + 4, 3 + 3, 4 + 2, and 5 + 1. Thus the probability is $\frac{5}{36}$.

30) **D** Use a chart to solve this problem:

	25¢	10¢	5¢	1¢	Total
1.	1	0	0	0	25¢
2.	0	2	1	0	25¢
3.	0	2	0	5	25¢
4.	0	1	3	0	25¢
5.	0	1	2	5	25¢
6.	0	1	1	10	25¢
7.	0	1	0	15	25¢
8.	0	0	5	0	25¢
9.	0	0	4	5	25¢
10.	0	0	3	10	25¢
11.	0	0	2	15	25¢
12.	0	0	1	20	25¢
13.	0	0	0	25	25¢