

## Math Kangaroo 2005 Answers

### Level of Grades 3-4

1. C
2. A
  - a. One way to do this problem: Figure out how many times 4 goes into 17. (4 times) Then you know that the clocked moved 4 hours and 15 minutes which means the minute hand will be on the three.
3. B
4. B:  $4 \times 4 = 16$ 
  - a.  $8 \times \underline{\quad} = 16$
  - b. Answer: 2
5. B
  - a. Eva: 2 legs
  - b. 2 parents: 4 legs
  - c. Brother: 3 legs
  - d. Dog: 4 legs
  - e. 2 cats: 8 legs
  - f. 2 parrots: 4 legs
  - g. 4 fish – no legs
  - h. Total: 24 legs
6. D
7. E
8. C
9. C
10. B
11. B
12. C
13. D
  - a.  $66 - 24 = 42$
  - b.  $42 \div 2 = 21$
  - c.  $24 + 21 = 45$
  - d.  $45 + 21 = 66$
14. D
15. E
  - a. This is kind of a poorly worded question as they don't tell you how many sacks he can carry at one time. We are assuming he can only carry one sack at a time and that each sack has a hole.
16. D
17. B
18. B
19. A –
  - a. To get from the perimeter of the inside of the picture frame to the perimeter of the outside of the picture frame, you can see that you have to add 8 more equal pieces. (2

on each corner). Therefore, the answer is 1m because the problem states that the perimeter of the outside is 8 more than the perimeter of the inside.

20. D

- a. You need 50 gold coins
- b. Each box has 10 gold coins so you need to open 5 boxes
- c. Each chest has 3 boxes so you need to open 2 chests
- d. All the chests are in 1 trunk
- e.  $1+2+5 = 8$

21. C

- a. To get the long measurement of 1 flower bed you can look at the 2 middle flower beds. The length of the whole garden is 16m and we can see that 2 flower beds span the entire side of 16m. Therefore, the length of 1 flower bed is 8m.
- b. Once we know that, we can see that the other side (20 m) spans a length of two flower beds (long ways) and 1 flower bed (short ways).
- c. Therefore, we have  $8 + 8 + \underline{\quad} = 20$
- d. Width of flower bed = 4
- e. Therefore, the dimensions of the flower bed are 8m by 4m.
- f. The perimeter is  $16 + 8 = 24\text{m}$

22. E

23. B

24. E