

2007 MathEdge+ Beginner Level Contest

1st and 2nd graders do problems 1-10. Please box the answer. No partial credit will be given. Only correct answer counts. No Calculator. 30 mins

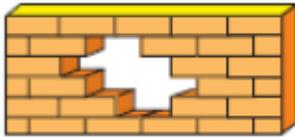
- 1) How many different digits can be found from the “face” picture?

ANS: 6

SOL: The total six different digits are 2 (the hair clip), 3 (the hair), 6 (the eyes), 7 (the nose), 8 (three of them – the ears and mouth), and 0 (the face).



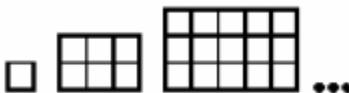
- 2) How many bricks are missing in this wall?



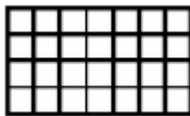
ANS: 6

SOL: The top and bottom missed one and the middle two rows missed two each. Total missed = 6.

- 3) Draw the next figure to the sequence:



ANS:



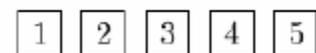
- 4) What number is covered by ? in the last picture below?



ANS: 1

SOL: The number in the middle circle = the number of people in the upper half of the circle (shaded) – the number of people shown in the lower half of the circle. In the last picture, $? = 4 - 3 = 1$

- 5) Five cards are laying on the table in the order: 5, 1, 4, 3, 2 as shown in the top row of the picture. They need to be placed in the order shown in the bottom row. In each move, any two cards may be switched. What is the least number of moves that need to be made?



ANS: 3

SOL: 1) switch 5 and 1, then 2) 5 and 2, then 3) 4 and 3.

- 6) Using only digits 1 and 2, how many different 1 or 2-digit counting numbers can one make?

ANS: 6

SOL: $2 + 2 \times 2 = 6$ different 1 or 2-digit whole numbers can be made: 1, 2, 11, 12, 21, 22