SAT MATH PRACTICE PAPER

1. Apples are distributed, one at a time, into six baskets. The first apple goes into basket one, the second into basket two, the third into basket three, and so on, until each basket has one apple. If this pattern is repeated, beginning each time with basket one, into which basket will the 74th apple be placed?

○ Basket two

○ Basket three

○ Basket four

○ Basket five

○ Basket six

2. Of the students in a certain homeroom, 9 are in the school play, 12 are in the orchestra, and 15 are in the choral group. If 5 students participate in exactly 2 of the 3 activities and all other students participate in only 1 activity, how many students are in the homeroom?

○ 30

○ 31

○ 26

○ 25

○ 21

3. P is the set of positive integer factors of 20, and Q is the set of positive integer factors of 12. If x is a member of set P and y is a member of set Q what is the greatest possible value of x-y?

○ 4

○ 8

○ 14

○ 19

○ 20

4. In an election for class president, Maria finished first, Kevin second, Carlos third, and Diane fourth. Maria received 91 votes, and Diane received 32 votes. If a total of 224 votes were cast for the four candidates, what is the minimum number of votes that Kevin could have received?
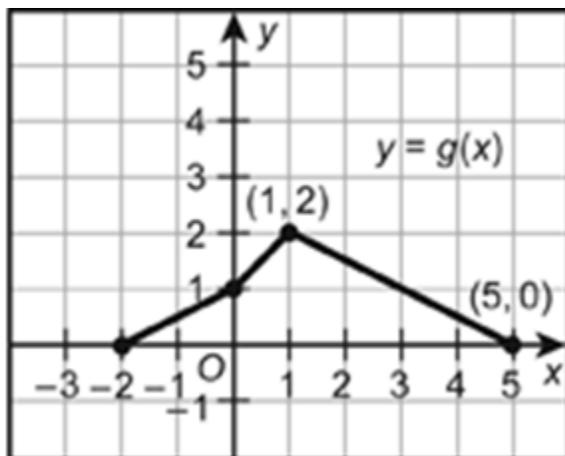
○ 49

○ 51

○ 52

○ 55

○ 57

5. If q and r are positive odd integers, which of the following is greatest?
A. q^r
B. $(-q)^r$
C. $(-q)^{2r}$
D. $(-2q)^{2r}$
E. $(-2q)^{3r}$

○ A

○ B

○ C

○ D

○ E

6. The graph of the function g in the xy -plane is shown below. If f is another function defined for -2 <= x <= 5 and if f(3)=0 then g could be which of the following?
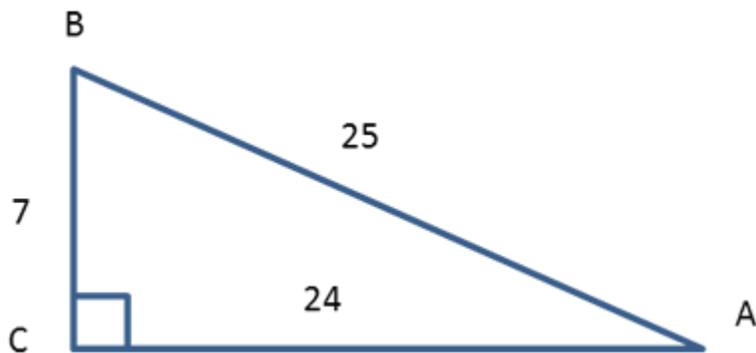
○ f-3

○ f-1

○ f+1

○ f+2

○ f+3

7. f $4^{x+1} = 64$, what is the value of x?

○ 2

○ 3

○ 4

○ 5

○ 6

8. The product of two positive integers is less than 50 and the sum of the two integers is greater than 20. Which of the following could be one of the integers?

○ 5

○ 10

○ 15

○ 20

○ 50

9. What is Cos A?

○ 7/24

○ 7/25

○ 24/7

○ 24/25

○ None of the above.

10. Two sides of a triangle have sides 4 and 8. The length of the third side must be greater than_____ and less than_____.

○ 2, 3

○ 4, 12

○ 0, 12

○ 4, 8