Oak Grove Math Superstars

Due Dates:

Session	Last Monday of
1	September
2	October
3	November
4	January
5	February
6	March

Grade 5

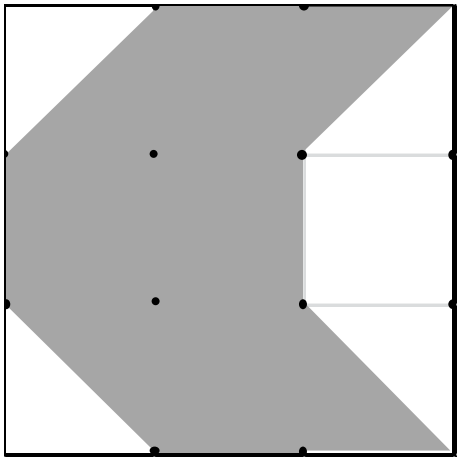
Session 6 - Answers

(50 points total; 10 points deducted if late)

Problem 1 (5 points):

Grader: 5 points for the correct answer; 4 points if 54 without units; minimum of 2 point if attempted.

The area of the large square is 81 sq. in. What is the area of the shaded portion?

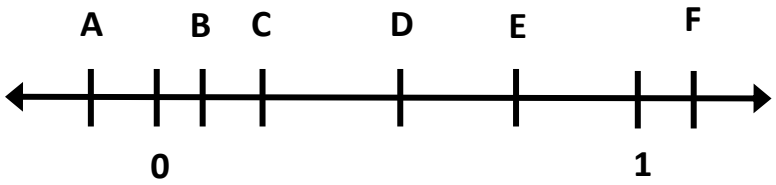


Answer: _(3*3*1/2*4+4*3*3)=9*(2+4)=54 sq. inch_____

Problem 2 (5 points):

Grader: 5 points for the correct answer; minimum of 1 point if attempted.

If point C is multiplied by point D, the answer will be which point?



Answer: __B since C and D are less than 1 thus the answer must be greater than zero but less than the min(C, D)__

Problem 3 (10 points):

Grader: 10 points for the correct answer; 5 points if instead answered 42 built; minimum of 2 points if attempted.

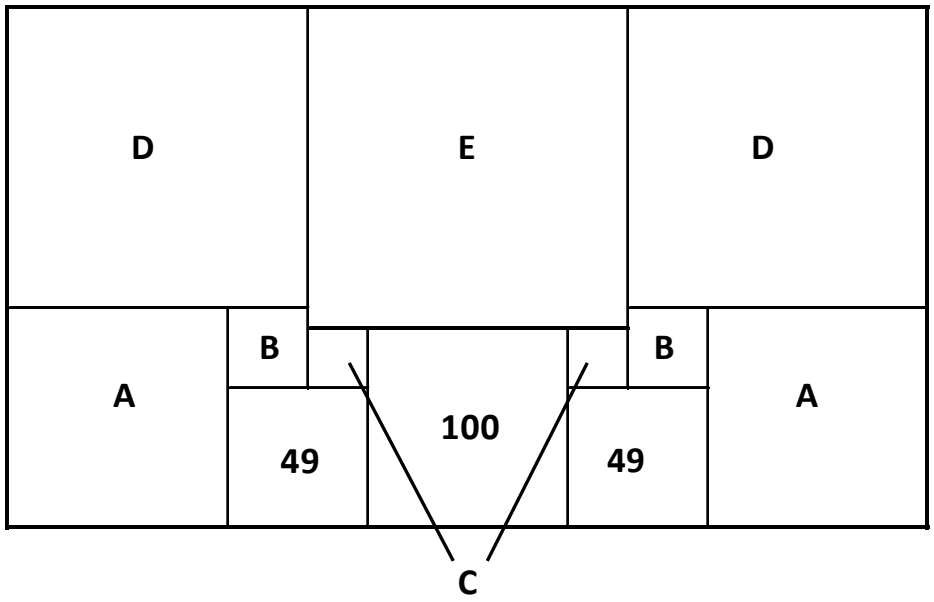
John agreed to build mailboxes for 50 people within one month (he needs to build 50 mailboxes). For every mailbox he completes, he will receive $40, for every one that he fails to build, he will be fined $10. At the end of the month, John received $1600. Based this dollar amount, how many mailboxes must he have failed to build?

Answer: Did not build 8; 40(50-x) - 10x = 1600 solve for x to get x = 8

Problem 4 (20 points):

Grader: 3 points each for each correct A-E answer, 5 points for correct rectangle answer; 1 point for each wrong attempted answer.

The rectangle below is cut into perfect squares. Two of which have area of 49 cm^2 and 100 cm^2. Find the area for each of the labeled squares and of the rectangle.



Answers:

A	=	121 cm^2
B	=	16 cm^2
C	=	9 cm^2
D	=	225 cm^2
E	=	256 cm^2
Rectangle	=	1196cm^2

Problem 5 (10 points):

Grader: 10 points for the correct answer; minimum of 2 points if attempted.

One bus arrives at the airport every 16 minutes while another bus arrives every 20 minutes. If both arrive at 3:00pm what is the next time they both will arrive at the airport at the same time?

Answer: 4:20pm (5x16 = 4x20)