1. (3 x 104) + (2 x 10²) + (4 x 10) =

○ A. 302400

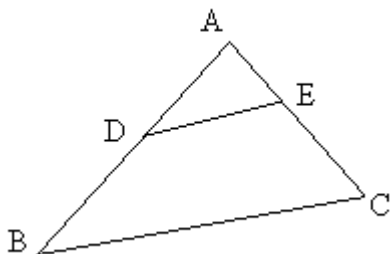○ B. 32400

○ C. 30240

○ D. 3240

○ E. 324

2. Andy solves problems 74 to 125 inclusive in a Math exercise. How many problems does he solve?

○ A. 53

○ B. 52

○ C. 51

○ D. 50

○ E. 49

3. If x and y are integers, and 3x + 2y = 13, which of the following could be the value of y ?

Select ALL values that apply.

☐ B. 1

☐ C. 2

☐ D. 3

4. In triangle ABC, AD = DB , DE is parallel to BC, and the area of triangle ABC is 40. What is the area of triangle ADE ?

○ A. 10

○ B. 15

○ C. 20

○ D. 30

○ E. it cannot be determined from the information given

5. If n > 0 , which of the following must be true?

Select ALL that apply.

A. $n^2 > 1$

B. $n - n^2 < 0$

C. $2n - 1 > 0$

D. $2n^3 > 0$

A	B
2	5
3	10
4	17
5	26

6. Which of the following describes the relationship between A and B as shown in the pairs of numbers in the table above?

A. $B = A + 4$

B. $B = 2A + 1$

C. $B = 3A - 1$

D. $B = A^2 + 1$

E. $B = A^2 - 1$

7. 6 people meet for a business lunch. Each person shakes hands once with each other person present. How many handshakes take place?
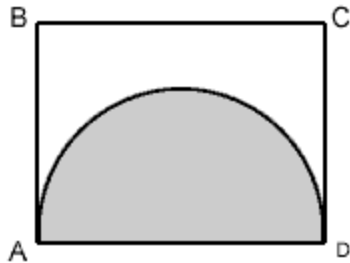
A. 30

B. 21

C. 18

D. 15

E. 10

8. If $x^2 - y^2 = 55$, and $x - y = 11$, then $y =$

A. 8

B. 5

C. 3

D. -8

E. -3

9. In a sports club with 30 members, 17 play badminton and 19 play tennis and 2 do not play either. How many members play both badminton and tennis?

A. 7

B. 8

C. 9

○ D. 10

○ E. 11

(figure not to scale)

10. Rectangle ABCD has a perimeter of 26. The half circle with diameter AD has an area of 8π. What is the perimeter of the part of the figure that is not shaded?

○ A. 26 + 4π

○ B. 18 + 8π

○ C. 18 + 4π

○ D. 14 + 4π

○ E. 14 + 2π

Answer Key

1. (3 x 104) + (2 x 10²) + (4 x 10) =

○ A. 302400

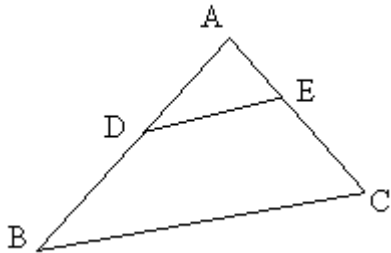○ B. 32400

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○ B. 52

○ C. 51

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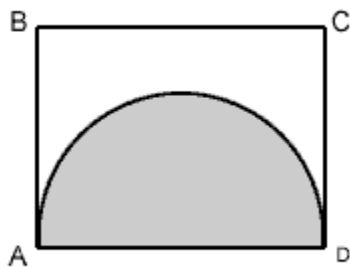
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Answer Key

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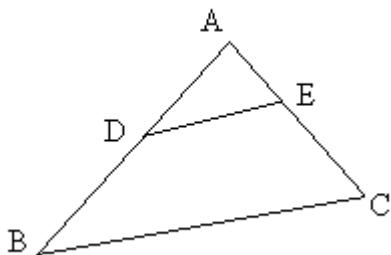○ C. 30240

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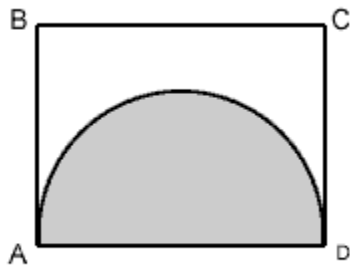
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Answer Key

1.   C

2.   B

3.   C

4.   A

5.   D

6.   D

7.   D

8.   E

9.   B

10.   C