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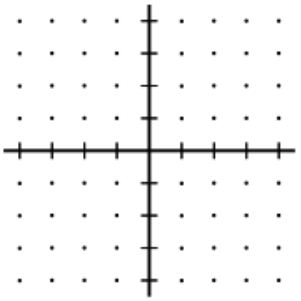
2001 Q11

11. Points A, B, C and D have these coordinates: $A(3,2)$, $B(3,-2)$, $C(-3,-2)$ and $D(-3,0)$. The area of quadrilateral $ABCD$ is

(A) 12 (B) 15 (C) 18 (D) 21 (E) 24



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1985 Q12

12. A square and a triangle have equal perimeters. The lengths of the three sides of the triangle are 6.2 cm, 8.3 cm and 9.5 cm. The area of the square is

A) 24 cm^2 B) 36 cm^2 C) 48 cm^2 D) 64 cm^2 E) 144 cm^2

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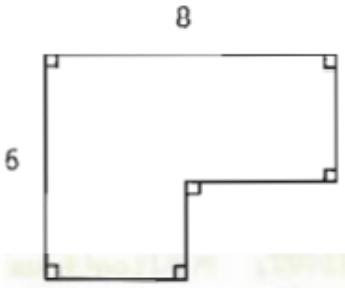
1986 Q13

13. The perimeter of the polygon shown is

A) 14 B) 20 C) 28 D) 48

E) cannot be determined from the information given



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1988 Q13

13. If rose bushes are spaced about 1 foot apart, approximately how many bushes are needed to surround a circular patio whose radius is 12 feet?

A) 12 B) 38 C) 48 D) 75 E) 450

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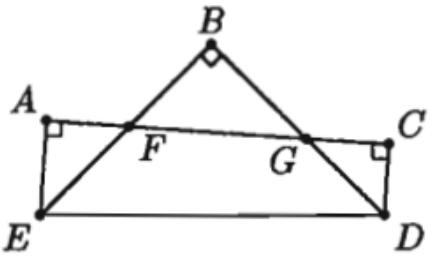
1995 Q13

13. In the figure, $\angle A$, $\angle B$ and $\angle C$ are right angles. If $\angle AEB = 40°$ and $\angle BED = \angle BDE$, then $\angle CDE =$

(A) 75° **(B)** 80° **(C)** 85°
(D) 90° **(E)** 95°



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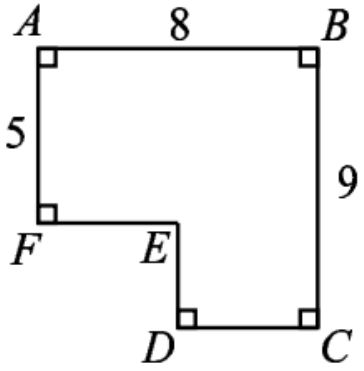
2005 Q13

13. The area of polygon $ABCDEF$ is 52 with $AB = 8$, $BC = 9$ and $FA = 5$. What is $DE + EF$?



(A) 7 **(B)** 8 **(C)** 9 **(D)** 10 **(E)** 11

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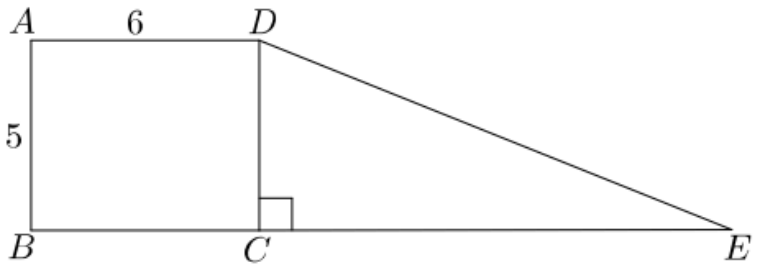
2014 Q14

14. Rectangle $ABCD$ and right triangle DCE have the same area. They are joined to form a trapezoid, as shown. What is DE?

(A) 12 **(B)** 13 **(C)** 14 **(D)** 15 **(E)** 16



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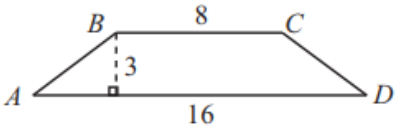
1999 Q14

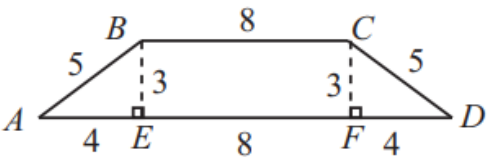
14. In trapezoid $ABCD$, the side AB and CD are equal. The perimeter of $ABCD$ is



(A) 27 **(B)** 30 **(C)** 32

(D) 34 **(E)** 48

14. **Answer (D):** When the figure is divided, as shown the unknown sides are the hypotenuses of right triangles with legs of 3 and 4. Using the Pythagorean Theorem yields $AB = CD = 5$. The total perimeter is $16 + 5 + 8 + 5 = 34$.



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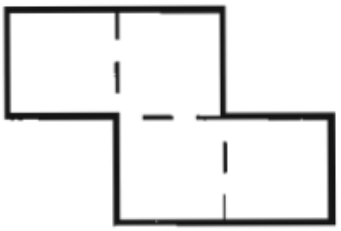
1990 Q15

15. The area of this figure is 100 cm^2. Its perimeter is



[figure consists of four identical squares]

A) 20 cm B) 25 cm C) 30 cm

D) 40 cm E) 50 cm

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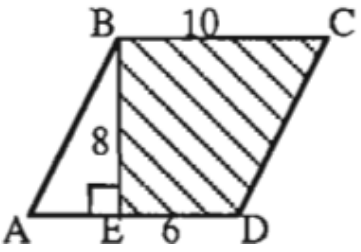
1989 Q15

15. The area of the shaded region BEDC in parallelogram ABCD is



A) 24 B) 48 C) 60 D) 64 E) 80

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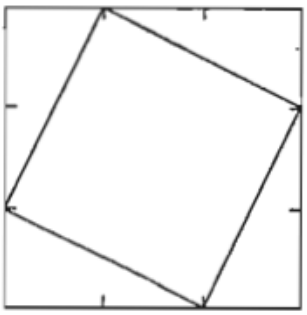
1997 Q15

15. Each side of the large square in the figure is trisected (divided into three equal parts). The corners of an inscribed square are at these trisection points, as shown. The ratio of the area of the inscribed square to the area of the large square is



(A) $\frac{\sqrt{3}}{3}$ **(B)** $\frac{5}{9}$ **(C)** $\frac{2}{3}$ **(D)** $\frac{\sqrt{5}}{3}$ **(E)** $\frac{7}{9}$