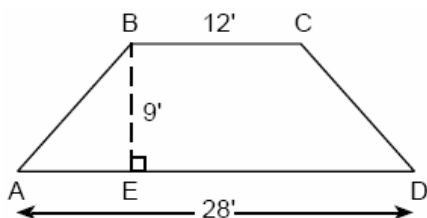


NAME: _____

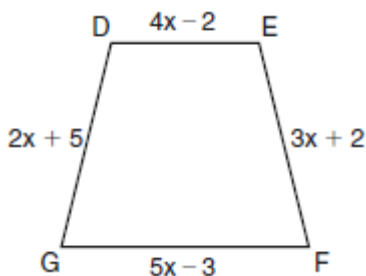
1. 069933a, P.I. G.G.40

The cross section of an attic is in the shape of an isosceles trapezoid, as shown in the accompanying figure. If the height of the attic is 9 feet, $BC = 12$ feet, and $AD = 28$ feet, find the length of \overline{AB} to the nearest foot.



2. 080929ge, P.I. G.G.40

In the diagram below of isosceles trapezoid $DEFG$, $\overline{DE} \parallel \overline{GF}$, $DE = 4x - 2$, $EF = 3x + 2$, $FG = 5x - 3$, and $GD = 2x + 5$. Find the value of x .



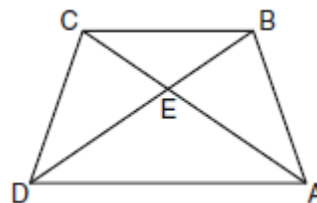
3. fall0801ge, P.I. G.G.40

Isosceles trapezoid $ABCD$ has diagonals \overline{AC} and \overline{BD} . If $AC = 5x + 13$ and $BD = 11x - 5$, what is the value of x ?

[A] $10\frac{3}{4}$ [B] 28 [C] 3 [D] $\frac{1}{2}$

4. 080905ge, P.I. G.G.29

In the diagram of trapezoid $ABCD$ below, diagonals \overline{AC} and \overline{BD} intersect at E and $\triangle ABC \cong \triangle DCB$.



Which statement is true based on the given information?

- [A] $\angle CDB \cong \angle BAC$ [B] $\overline{CD} \cong \overline{AD}$
[C] $\angle CDE \cong \angle BAD$ [D] $\overline{AC} \cong \overline{BC}$

[4] 12 and an appropriate method is shown,
such as $(AB)^2 = 9^2 + 8^2$.

[3] An incorrect length is found for AE, but
then it is used to correctly complete the
problem.

or [3] An appropriate method is shown, but
one computational mistake is made.

or [3] An appropriate method is shown, but
the answer is not given to the nearest foot,
such as $\sqrt{145}$.

[2] $AE = 8$ and one computational mistake is
made using the Pythagorean theorem.

or [2] An incorrect length is found for AE, but
then it is used to complete the problem
correctly, but the answer is not rounded.

[1] $AE = 8$ is found, but the Pythagorean
theorem is not used.

or [1] 12 and no work is shown.

[0] A zero response is completely incorrect,
irrelevant, or incoherent or is a correct
response that was obtained by an obviously

[1] incorrect procedure.

[2] 3, and appropriate work is shown.

[1] Appropriate work is shown, but one
computational error is made.

or [1] Appropriate work is shown, but one
conceptual error is made.

or [1] 3, but no work is shown.

[0] A zero response is completely incorrect,
irrelevant, or incoherent or is a correct
response that was obtained by an obviously

[2] incorrect procedure.

[3] C

[4] A
