$\qquad$

## /12

1 In rectangle ABCD shown below, line segment CE is perpendicular to diagonal BD . In addition, $\mathrm{m} \overline{\mathrm{ED}}$ $=9 \mathrm{~cm}$ and $\mathrm{m} \overline{\mathrm{CD}}=15 \mathrm{~cm}$.

What is the length of diagonal BD?(4pts)


2 Louise wants to buy the piece of land corresponding to triangle BAE shown in the rectangle.

What is the area of this piece of land? (4pts)


3 In the figure to the right, triangle ABC is right-angled at C and $\overline{\mathrm{CE}}$ is an altitude. In addition, $\mathrm{m} \overline{\mathrm{AB}}=50 \mathrm{~cm}$ and $m \overline{\mathrm{AC}}=40 \mathrm{~cm}$.


What is the perimeter of triangle ACE? (4pts)

