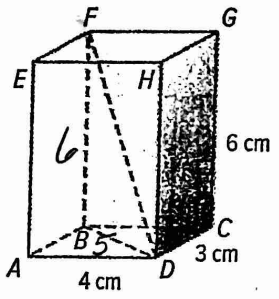
Finding missing parts of Rectangular Prisms & Cubes

1. In the figure, $\overline{BD}$ is the diagonal of the base and $\overline{FD}$ is the diagonal of the figure. Find $\overline{FD}$ to the nearest tenth.

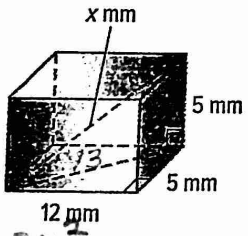


$\overline{BD} = 3^2 + 4^2 =$
$9 + 16 = 25$
5

$FD = C =$
$5^2 + 6^2 = c^2$
$25 + 36 = c^2$
$61 = c^2$
$\sqrt{61} =$ **7.8 cm** $=$

Find the missing measure in each figure below. Round to the nearest tenth, if necessary.

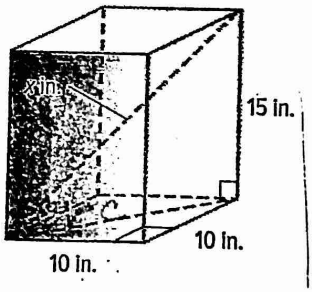
2.



$5^2 + 12^2 = x^2$

$5^2 + 13^2 = x^2$
$25 + 169 = x^2$
$194 = x^2$
13.9 mm = x

3.



$10^2 + 10^2 = c^2$
$100 + 100 = c^2$
$200 = c^2$
$\sqrt{200} = c$

$15^2 + (\sqrt{200})^2 = x^2$
$225 + 200 = x^2$
$425 = x^2$
20.6 in = x