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(a) $A = \frac{1}{2} b \times h$

$A = \frac{1}{2} ab$

$\delta A = \partial A/\partial a \cdot \delta a + \partial A/\partial b \cdot \delta b$

$\partial A/\partial a = \frac{1}{2} b$, $\partial A/\partial b = \frac{1}{2} a$

$\delta a = \pm \frac{1.5a}{100}$, $\delta b = \pm \frac{1.5b}{100}$

$\therefore \delta A = \frac{1}{2}\left[\frac{\pm 1.5a}{100}\right] + \frac{1}{2} a \left[\frac{\pm 1.5b}{100}\right]$

$= \frac{ab}{2}\left(\frac{\pm 1.5 + [\pm 1.5]}{100}\right)$

$\delta A = \frac{ab}{2}(\pm 3\%)$

but $A = \frac{1}{2} ab = \frac{ab}{2}$

$\delta A = A(\pm 3\%)$

∴ There is a ±3% change in the area, there is a ±1.5% change in "a" and a ±1.5% change in "b" of the triangle

b) $h = \sqrt{a^2 + b^2}$

$\delta h = \partial h/\partial a \cdot \delta a + \partial h/\partial b \cdot \delta b$

$\partial h/\partial a = \frac{a}{(\sqrt{a^2+b^2})}$, $\partial h/\partial b = \frac{b}{(\sqrt{a^2+b^2})}$

$\delta a = \pm 1.5a/100$, $\delta b = \pm 1.5b/100$

$\delta h = \frac{a}{\sqrt{a^2+b^2}}\left(\frac{\pm 1.5a}{100}\right) + \frac{b}{\sqrt{a^2+b^2}}\left(\frac{\pm 1.5b}{100}\right)$

$= \frac{\pm 1.5a^2}{100\sqrt{a^2+b^2}} + \frac{\pm 1.5b^2}{100\sqrt{a^2+b^2}}$

by factorization

$\delta h = \pm 1.5/100\left(\frac{a^2+b^2}{\sqrt{a^2+b^2}}\right)$

$\delta h = \pm 1.5/100\left(\sqrt{a^2+b^2}\right)$

but $h = \sqrt{a^2+b^2}$

$\therefore \delta h = \pm 1.5\%\ (h)$

$\therefore$ There is a $\pm 1.5\%$ change in the hypotenuse when there is a $\pm 1.5\%$ in @ and a $\pm 1.5\%$ change in "b" of the triangle.