$$\begin{aligned} 12 \cdot b &= 12 \cdot 10 \\ &= 120 \end{aligned}$$

$$\begin{aligned} \Delta\left(12 \cdot b\right) &= \left|12 \cdot b \cdot \frac{\Delta\left(b\right)}{b}\right| \\ &= \left|120 \cdot 0.12\right| \\ &= 14.4 \end{aligned}$$

$$\therefore 12 \cdot b = 120 \pm 14.4$$

$$\begin{aligned} 12 \cdot b \cdot h &= 120 \cdot 14 \\ &= 1680 \end{aligned}$$

$$\begin{aligned} \Delta\left(12 \cdot b \cdot h\right) &= \left|12 \cdot b \cdot h\right| \sqrt{\left(\frac{\Delta\left(12 \cdot b\right)}{12 \cdot b}\right)^2 + \left(\frac{\Delta\left(h\right)}{h}\right)^2} \\ &= \left|1680\right| \sqrt{0.12^2 + 0.05357^2} \\ &= 220.77717 \end{aligned}$$

$$\therefore 12 \cdot b \cdot h = 1680 \pm 220.77717$$

$$\begin{aligned} 10^4 &= 10^4 \\ &= 10000 \end{aligned}$$

$$\begin{aligned} \Delta\left(10^4\right) &= \left|10^4 \cdot 4 \cdot \frac{\Delta\left(10\right)}{10}\right| \\ &= \left|10000 \cdot 4 \cdot 0\right| \\ &= 0 \end{aligned}$$

$$\therefore 10^4 = 10000 \pm 0$$

$$\begin{aligned}\frac{12 \cdot b \cdot h}{10^4} &= \frac{1680}{10000} \\ &= 0.168\end{aligned}$$

$$\begin{aligned}\Delta\left(\frac{12 \cdot b \cdot h}{10^4}\right) &= \left|\frac{12 \cdot b \cdot h}{10^4} \cdot \frac{\Delta\left(12 \cdot b \cdot h\right)}{12 \cdot b \cdot h}\right| \\ &= |0.168 \cdot 0.13141| \\ &= 0.02208\end{aligned}$$

$$\therefore \frac{12 \cdot b \cdot h}{10^4} = 0.168 \pm 0.02208$$

$$\begin{aligned}4 \cdot E &= 4 \cdot 5 \\ &= 20\end{aligned}$$

$$\begin{aligned}\Delta\left(4 \cdot E\right) &= \left|4 \cdot E \cdot \frac{\Delta\left(E\right)}{E}\right| \\ &= |20 \cdot 0.05| \\ &= 1\end{aligned}$$

$$\therefore 4 \cdot E = 20 \pm 1$$

$$\begin{aligned}4 \cdot E \cdot I &= 20 \cdot 0.168 \\ &= 3.36\end{aligned}$$

$$\begin{aligned}\Delta\left(4 \cdot E \cdot I\right) &= |4 \cdot E \cdot I| \sqrt{\left(\frac{\Delta\left(4 \cdot E\right)}{4 \cdot E}\right)^2 + \left(\frac{\Delta\left(I\right)}{I}\right)^2} \\ &= |3.36| \sqrt{0.05^2 + 0.13141^2} \\ &= 0.47243\end{aligned}$$

$$\therefore 4 \cdot E \cdot I = 3.36 \pm 0.47243$$

$$
\begin{aligned}
p^2 &= 6^2 \\
&= 36
\end{aligned}
$$

$$
\begin{aligned}
\Delta\left(p^2\right) &= \left| p^2 \cdot 2 \cdot \frac{\Delta\left(p\right)}{p} \right| \\
&= \left| 36 \cdot 2 \cdot 0.06667 \right| \\
&= 4.8
\end{aligned}
$$

$$
\therefore p^2 = 36 \pm 4.8
$$

$$
\begin{aligned}
\frac{4 \cdot E \cdot I}{p^2} &= \frac{3.36}{36} \\
&= 0.09333
\end{aligned}
$$

$$
\begin{aligned}
\Delta\left(\frac{4 \cdot E \cdot I}{p^2}\right) &= \left| \frac{4 \cdot E \cdot I}{p^2} \right| \sqrt{\left(\frac{\Delta\left(4 \cdot E \cdot I\right)}{4 \cdot E \cdot I}\right)^2 + \left(\frac{\Delta\left(p^2\right)}{p^2}\right)^2} \\
&= \left| 0.09333 \right| \sqrt{0.14061^2 + 0.13333^2} \\
&= 0.01809
\end{aligned}
$$

$$
\therefore \frac{4 \cdot E \cdot I}{p^2} = 0.09333 \pm 0.01809
$$

$$
\begin{aligned}
\sqrt{\frac{4 \cdot E \cdot I}{p^2}} &= \sqrt{0.09333} \\
&= 0.30551
\end{aligned}
$$

$$
\begin{aligned}
\Delta\left(\sqrt{\frac{4 \cdot E \cdot I}{p^2}}\right) &= \left| \sqrt{\frac{4 \cdot E \cdot I}{p^2}} \cdot 0.5 \cdot \frac{\Delta\left(\frac{4 \cdot E \cdot I}{p^2}\right)}{\frac{4 \cdot E \cdot I}{p^2}} \right| \\
&= \left| 0.30551 \cdot 0.5 \cdot 0.19377 \right| \\
&= 0.0296
\end{aligned}
$$

$$
\therefore \sqrt{\frac{4 \cdot E \cdot I}{p^2}} = 0.30551 \pm 0.0296
$$