ELEC-E4130

Comments on Midterm 2 and final scores

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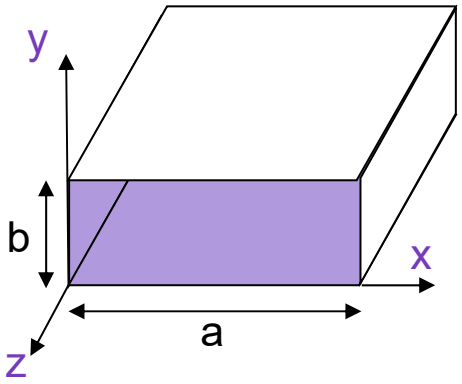
Comments on Midterm 2, Problem 3 solution



TE_{10} fields

$$E_y = \frac{-j\omega\mu a}{\pi} B_{10} \sin\frac{\pi x}{a} e^{-j\beta z}$$

$$H_x = \frac{j\beta a}{\pi} B_{10} \sin\frac{\pi x}{a} e^{-j\beta z}$$

$$H_z = B_{10} \cos\frac{\pi x}{a} e^{-j\beta z}$$

$$E_z = E_x = H_y = 0$$

This component, at this frequency is bigger

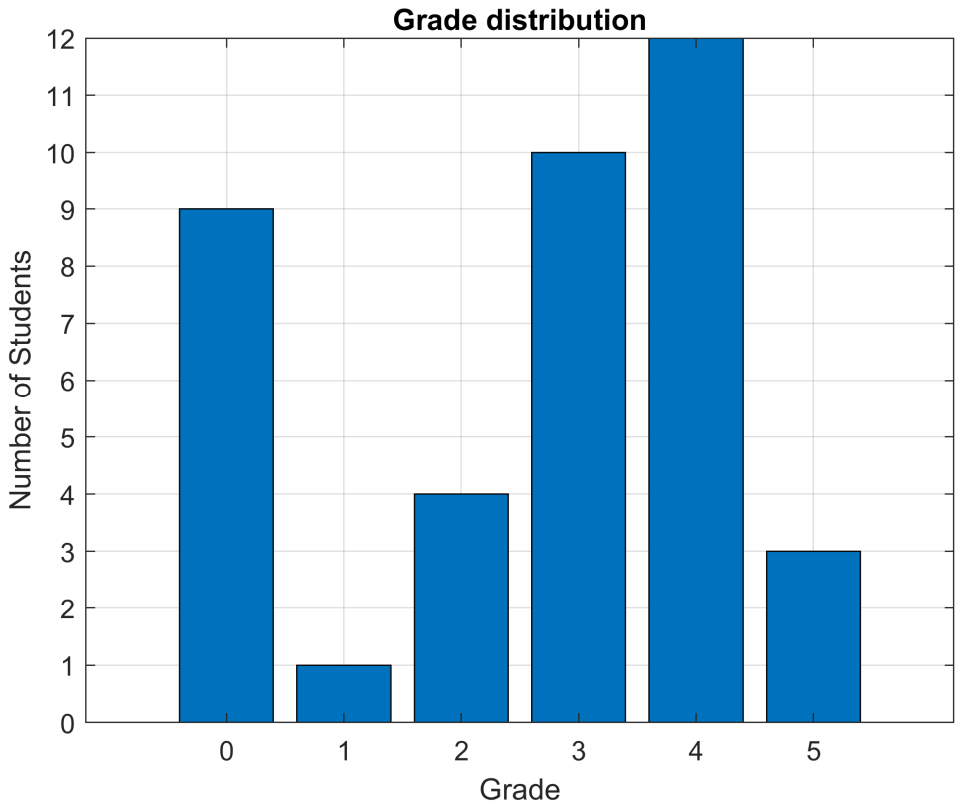
$|H|_{max} \rightarrow 187$ A/m
$|E|_{max} \rightarrow 94600$ V/m

Full credit for both answers

I incorrectly used this in the solution

$|H|_{max} \rightarrow 168$ A/m
$|E|_{max} \rightarrow 84700$ V/m

Final grades



Great work everybody