

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

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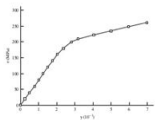
My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

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$y = mx + b$ ,  $r = y$ ,  $y = mx$  where  $m$  is the shear modulus  $G$ .

$$m = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}} = 77.3 \text{ MPa} = 77.3 \text{ GPa} \quad \text{Ans.}$$

$$b = \frac{\sum y - m \sum x}{N} = 1.462 \text{ MPa}$$

From curve  $S_{xy} = 200 \text{ MPa}$ . Ans.  
 Note: since  $\epsilon$  is not uniform, the offset yield does not apply, so we are using the elastic limit as an approximation.

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$x$	$f$	$fx$	$f^2$
38.5	2	77.0	2464.50
39.5	9	355.5	14042.25
40.5	30	1215.0	49207.50
41.5	65	2097.5	111946.50
42.5	101	2922.5	182431.30
43.5	112	4872.0	211924.00
44.5	90	4005.0	178222.50
45.5	54	2457.0	111769.50
46.5	25	1162.5	54066.25
47.5	9	427.5	20306.25
48.5	2	97.0	4706.50
49.5	1	49.5	2450.25
$\Sigma$	523.0	21708.0	944057.00

$$\bar{x} = 21708/500 = 43.416, \quad \bar{y} = \frac{944057 - (21708/500)^2}{500 - 1} = 1.7808$$

$$C_x = 1.7808/43.416 = 0.04102,$$

$$\bar{y} = \ln 43.416 - \ln(1 + 0.04102^2) = 3.7691$$

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