Subject: AC cct troubles
Posted by Mike.e on Sat, 15 Nov 2003 01:42:53 GMT
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hi !wayne-ok to post here? i thought it would be ok,and you would know to answer it too.i was doing some revision,and used an online site for a textbook because we dont get decent ones that tell us what we need to know...ok i was reading my notes,and i have one method that i understand,but cant tell if its a correct example,and the 2nd one,is an 'answer' to a question i did in an assignment,problem is i completely have no idea what hes doing in it.thanks alot!i know its simple,yet my tutor hasnt explained it well in a way i can use.i have looked at a site but it uses different methods...(listed at bottom)is this correct ??(AC Parallel circuit.)Obviously Convert mH

Subject: Re: AC cct troubles
Posted by toxicport.e on Sat, 15 Nov 2003 05:12:17 GMT
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ok so im fine getting up to finding the I in each path..Il=2.11AIc=3.14AIr=8.33AThen, Tan ø =Xl/R=82°(why is the angle of the Xl worked out ONLY ? )Dont worry! i just realised that the way he worded the question(extremely strangely) that its infact in parallel resistor,cap,inductor+resistorwhich explains WHY the angle was calculated for that,haha stupid wording of questions could save so much effort if written properly!as to the funny sin,cos stuff at the end im not sure,i need a Triangle.. to imagine whats going on

Subject: Re: AC cct troubles
Posted by Wayne Parham on Sat, 15 Nov 2003 17:07:40 GMT
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What I've always done was to first find all reactive impedances. Then one can find total impedance which will allow finding total current. For simple circuits having only a single resistance and reactance, there are simplified formulas; Complex networks require calculation using vectors. You can also find current through each branch, by knowing reactive impedance and voltage across the node. But as you know, the sum of all branch currents will not be equal to total current because of power factor, i.e. phase angle.

Subject: Re: AC cct troubles

Posted by toxicport.e on Sat, 15 Nov 2003 20:06:24 GMT
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Thanks wayneive made an excel spreadsheet which works out the currents through each part and angle,im working on the Total Z and total I and total phase angle now :-)