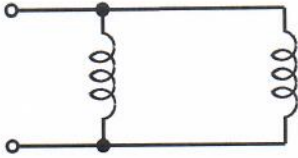


EE/EET 2240
Homework Problem #045

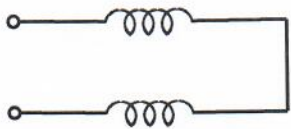
All inductors shown below are 12 mH. For each case, determine the equivalent inductance.

a.



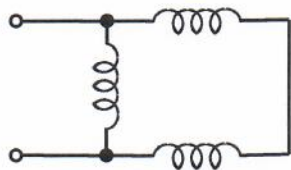
$$\frac{1}{\frac{1}{12\text{mH}} + \frac{1}{12\text{mH}}} = 6\text{mH}$$

b.



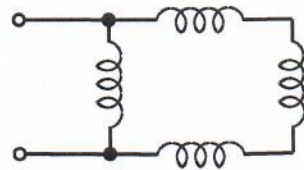
$$12\text{mH} + 12\text{mH} = 24\text{mH}$$

c.



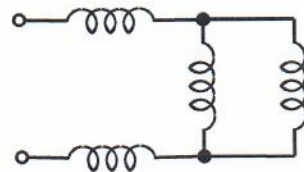
$$\frac{1}{\frac{1}{12\text{mH}} + \frac{1}{12\text{mH} + 12\text{mH}}} = 8\text{mH}$$

d.



$$\frac{1}{\frac{1}{12\text{mH}} + \frac{1}{12\text{mH} + 12\text{mH} + 12\text{mH}}} = 9\text{mH}$$

e.



$$12\text{mH} + \frac{1}{\frac{1}{12\text{mH}} + \frac{1}{12\text{mH}}} + 12\text{mH} = 30\text{mH}$$