

In[343]:=

```
ThreeAngles[{p_, q_, r_}] := (
  a = Norm[p - q]; b = Norm[p - r]; c = Norm[q - r];
  T = ArcCos[(-a^2 + b^2 + c^2)/(2 * b * c)];
  R = ArcCos[(a^2 - b^2 + c^2)/(2 * a * c)];
  Y = ArcCos[(a^2 + b^2 - c^2)/(2 * a * b)];
  N[Sort[{T/Degree, R/Degree, Y/Degree}]])

ThreeAngles[{{0.4, 0.8, 0}, {0.8, -0.5, -0.1}, {-0.4, -0.1, 0.9}}]
ThreeAngles[{{1, 2, 0}, {2, 1, 0}, {0, 1, 2}}]
ThreeAngles[{{0, 0, 0}, {1, 0, 0}, {0.5, Sqrt[3]/2, 0}}]
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Out[344]=

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{51.7714, 59.9863, 68.2422}
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Out[345]=

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{30., 60., 90.}
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Out[346]=

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{60., 60., 60.}
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