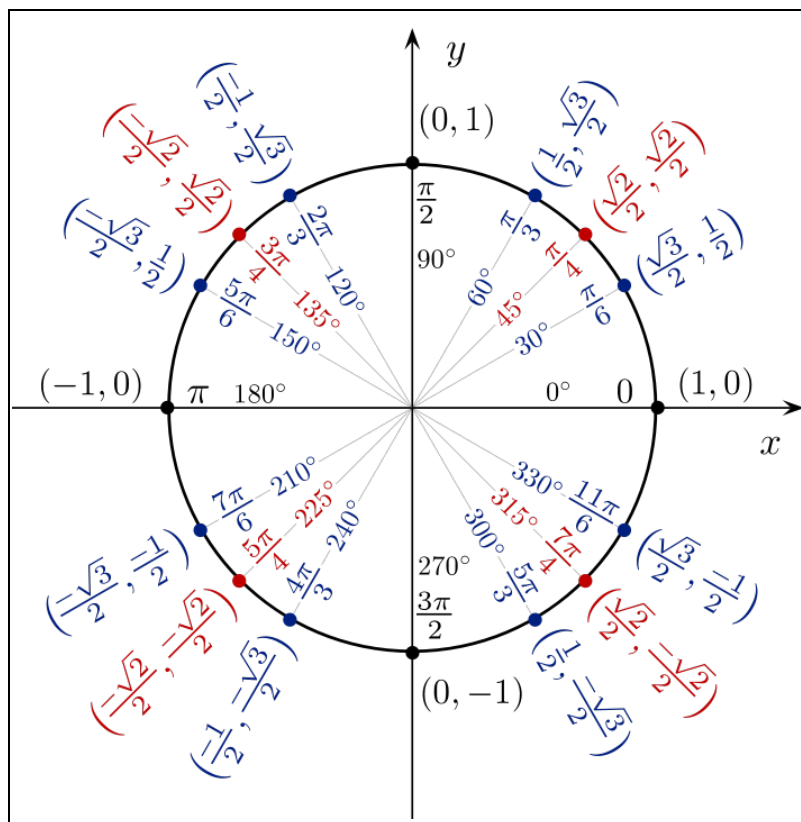


Useful Formulas: 2nd Semester Algebra/Trig Exam



Reciprocal Identities

$$\csc \theta = \frac{1}{\sin \theta} \quad \sec \theta = \frac{1}{\cos \theta} \quad \cot \theta = \frac{1}{\tan \theta}$$

Tangent and Cotangent Identities

$$\tan \theta = \frac{\sin \theta}{\cos \theta} \quad \cot \theta = \frac{\cos \theta}{\sin \theta}$$

Compound Interest

$$A = P \left(1 + \frac{r}{n} \right)^{nt}$$

Exponential Growth

$$y = a(1 + r)^t$$

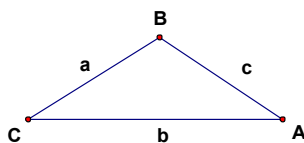
Exponential Decay

$$y = a(1 - r)^t$$

Law of Sines

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

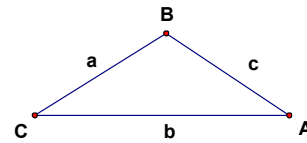


Law of Cosines

$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$b^2 = a^2 + c^2 - 2ac \cos B$$

$$c^2 = a^2 + b^2 - 2ab \cos C$$



Properties of Inverses with Logarithms

$$\log_b b^x = x$$

$$b^{\log_b x} = x$$