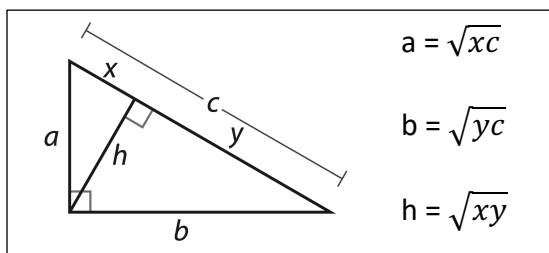


Geometry B – Final Exam Theorem Sheet

Geometric Means Theorem



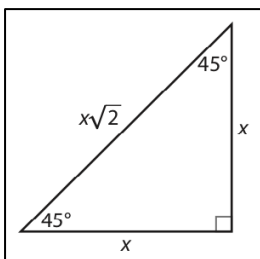
Trigonometry

$$T = \frac{O}{A} \quad S = \frac{O}{H} \quad C = \frac{A}{H}$$

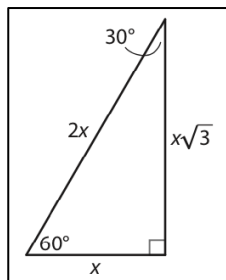
Finding Area of a Triangle using Trig

$$\text{Area} = \frac{1}{2} \cdot b \cdot c \cdot \sin A$$

45-45-90 Triangle



30-60-90 Triangle



Law of Sines

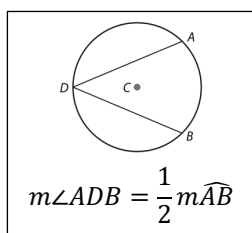
$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

Law of Cosines

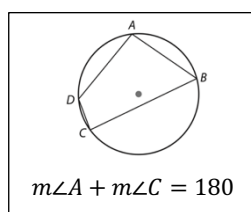
$$\cos A = \frac{a^2 + b^2 - c^2}{-2bc}$$

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

Inscribed Angle Theorem



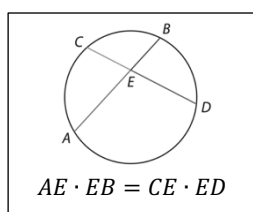
Inscribed Quadrilateral Theorem



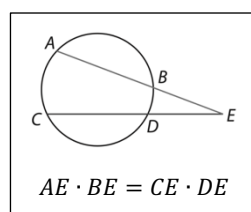
Pythagorean Theorem

$$a^2 + b^2 = c^2$$

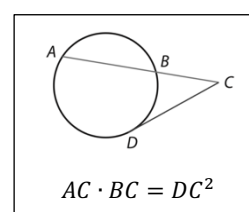
Chord-Chord Product Theorem

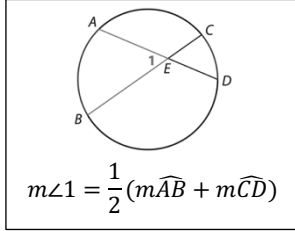


Secant-Secant Product Theorem



Secant-Tangent Product Theorem



Intersecting Chords Angle Theorem**Circumference**

$$C = 2\pi r$$

Area of Circle

$$A = \pi r^2$$

Arc Length

$$A.L. = \frac{m}{360} \cdot 2\pi r$$

Area of a Sector

$$S.A. = \frac{m}{360} \cdot \pi r^2$$

Equation of Circle

$$(x - h)^2 + (y - k)^2 = r^2$$

Volume of Prisms

$$V = B \cdot h$$

Volume of Pyramids

$$V = \frac{1}{3} \cdot B \cdot h$$

Volume of Cylinders

$$V = \pi r^2 h$$

Volume of Cones

$$V = \frac{1}{3} \cdot \pi r^2 h$$

Volume of Spheres

$$V = \frac{4}{3} \cdot \pi \cdot r^3$$

Lateral & Surface Area of Prisms

$$LA = P \cdot h \quad SA = LA + 2(B)$$

Lateral & Surface Area of Pyramids

$$LA = \frac{1}{2} \cdot P \cdot l \quad SA = LA + B$$

Lateral & Surface Area of Cylinders

$$LA = 2\pi r h \quad SA = LA + 2\pi r^2$$

Lateral & Surface Area of Cones

$$LA = \pi r l \quad SA = LA + \pi r^2$$

Surface Area of Spheres

$$SA = 4\pi r^2$$