



Massachusetts Comprehensive Assessment System Grade 8 Mathematics Reference Sheet

PERIMETER FORMULAS

square..... $P = 4s$

rectangle $P = 2b + 2h$

triangle..... $P = a + b + c$

CIRCLE FORMULAS

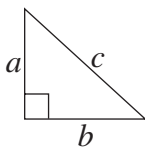
circle $C = 2\pi r$

OR

$$C = \pi d$$

$$A = \pi r^2$$

PYTHAGOREAN THEOREM



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

CONVERSIONS

1 mile = 5280 feet

1 square mile = 640 acres

AREA FORMULAS

square..... $A = s^2$

rectangle..... $A = bh$

OR

$$A = lw$$

triangle..... $A = \frac{1}{2}bh$

circle $A = \pi r^2$

trapezoid $A = \frac{1}{2}h(b_1 + b_2)$

VOLUME FORMULAS

rectangular prism $V = Bh$
(B = area of base)

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

cylinder $V = \pi r^2 h$

cube..... $V = s^3$
(s = length of an edge)