



Massachusetts Comprehensive Assessment System
Grade 7 Mathematics Reference Sheet

PERIMETER FORMULAS

square $P = 4s$

rectangle $P = 2b + 2h$

OR

$$P = 2l + 2w$$

triangle $P = a + b + c$

AREA FORMULAS

square $A = s^2$

rectangle $A = bh$

OR

$$A = lw$$

parallelogram $A = bh$

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

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

circle $A = \pi r^2$

TOTAL SURFACE AREA FORMULAS

rectangular prism $SA = 2(lw) + 2(hw) + 2(lh)$

cylinder $SA = 2\pi r^2 + 2\pi rh$

VOLUME FORMULAS

rectangular prism $V = lwh$

OR

$$V = Bh$$

(B = area of a base)

cube $V = s^3$

(s = length of an edge)

cylinder $V = \pi r^2 h$

CIRCLE FORMULAS

$$C = 2\pi r$$

OR

$$C = \pi d$$

$$A = \pi r^2$$