

Architectural Sheet Metal Worker Current Level 2

ACRONYMS AND ABBREVIATIONS

TERM	MEANING
ASME	American Society of Mechanical Engineers
AWS	American Welding Society
CWB	Canadian Welding Bureau
psi	Pounds per square inch
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
UV	Ultraviolet

NOTE

Do **not** bring this document to your exam.

These acronyms and abbreviations will be included in the exam reference materials.

FORMULAS

$$12 \text{ in.} = 1 \text{ ft.}$$

$$1,728 \text{ cu. in.} = 1 \text{ cu. ft.}$$

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

$$C = (F - 32)/1.8$$

$$3 \text{ ft.} = 1 \text{ yd.}$$

$$27 \text{ cu. ft.} = 1 \text{ cu. yd.}$$

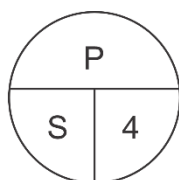
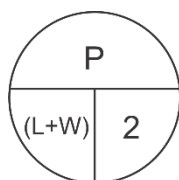
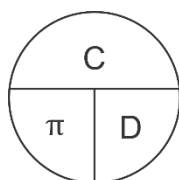
$$c^2 - b^2 = a^2$$

$$F = (C \times 1.8) + 32$$

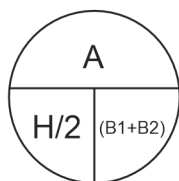
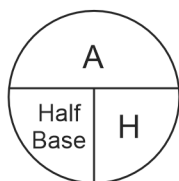
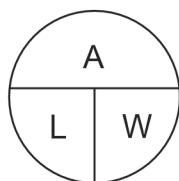
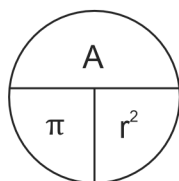
$$144 \text{ sq. in.} = 1 \text{ sq. ft.}$$

$$25.4 \text{ mm} = 1 \text{ in.}$$

$$1 \text{ gal} = 277 \text{ cu. in.}$$

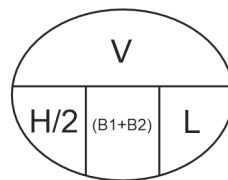
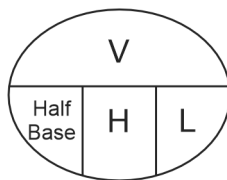
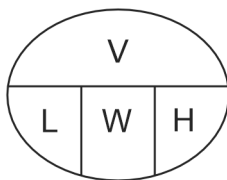
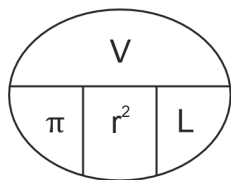


$$P = (\pi D) + (2 \times W)$$



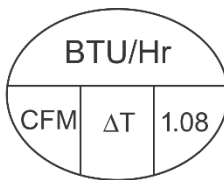
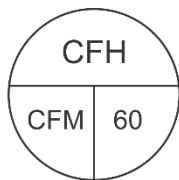
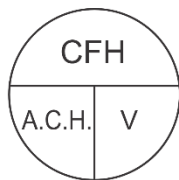
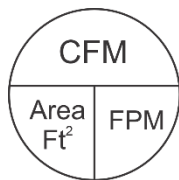
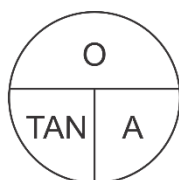
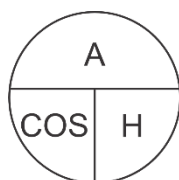
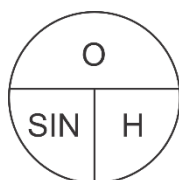
$$A = S^2$$

$$A = (\pi r^2) + (D \times W)$$



$$V = S^3$$

$$V = [(\pi r^2) + (D \times W)] \times L$$



$$FPM = 4,005\sqrt{VP}$$

$$V.P. = (FPM/4,005)^2$$

$$T.P. = S.P. + V.P.$$

$$W.L. = \frac{(4\sqrt{O^2 + L^2}) - L}{3}$$

$$M.A. = \frac{\text{Degree of Elbow}}{(\# \text{ pieces} \times 2 - 2)}$$

$$A.H. = \frac{VH \times D}{(D - d)}$$

$$R.P. = \frac{O^2 + L^2}{(4 \times O)}$$

$$S.H. = \text{MitreAngleTan} \times CLR$$

$$S.L. = \sqrt{AH^2 + (D/2)^2}$$

$$V.S.O. = \text{Seam Height} \times (\#Pcs \times 2 - 2) \quad P.A. = \frac{180^\circ \times \text{Diameter}}{\text{Slant Length}}$$

$$R.R. = \text{MitreAngleTan} \times \text{Pipe Radius}$$

$$C.L. = \text{SIN}(\text{pattern angle}/2) \times \text{Slant Length} \times 2$$

$$E.A. = (O/L) \text{TAN}^{-1} \times 2$$

$$A.L. = 1 \text{SIN} \times \text{radius} \times \# \text{ of degrees}$$

$$CFM / RPM / MOTOR \phi = \frac{NEW}{OLD} \times OLD$$

$$SP = \left(\frac{NEW}{OLD} \right)^2 \times OLD$$

$$BHP = \left(\frac{NEW}{OLD} \right)^3 \times OLD$$

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