

OPERATION	FORMULA NAME	FORMULA
$\boxed{1}\boxed{1}\boxed{9}$ FMLA	Bernoulli's theorem (2)	$v_2 = \sqrt{\frac{2g(P_1 - P_2)}{\gamma} + v_1^2 + 2g(Z_1 - Z_2)}$
$\boxed{1}\boxed{2}\boxed{0}$ FMLA	Bernoulli's theorem (3)	$Z_2 = \frac{P_1 - P_2}{\gamma} + \frac{v_1^2 - v_2^2}{2g} + Z_1$
$\boxed{1}\boxed{2}\boxed{1}$ FMLA	Equation of continuity (1)	$v_2 = \frac{A_1 v_1 \rho_1}{A_2 \rho_2}$
$\boxed{1}\boxed{2}\boxed{2}$ FMLA	Equation of continuity (2)	$A_2 = \frac{A_1 v_1 \rho_1}{v_2 \rho_2}$
$\boxed{1}\boxed{2}\boxed{3}$ FMLA	Module (1)	$M = \frac{D}{Z}$
$\boxed{1}\boxed{2}\boxed{4}$ FMLA	Module (2)	$M = \frac{P}{\pi}$
$\boxed{1}\boxed{2}\boxed{5}$ FMLA	Module (3)	$D_2 = \frac{D_1 Z_2}{Z_1}$
$\boxed{1}\boxed{2}\boxed{6}$ FMLA	Module (4)	$D = \frac{PZ}{\pi}$
$\boxed{1}\boxed{2}\boxed{7}$ FMLA	Reynold's number	$R = \frac{\mu \ell}{\nu}$
$\boxed{1}\boxed{2}\boxed{8}$ FMLA	Calculations using a stadia	$S = K \ell \cos^2 \alpha + C \cos \alpha$ $h = K \ell \sin 2\alpha + C \sin \alpha$

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### MATHEMATICS

OPERATION	FORMULA NAME	FORMULA
$\boxed{1}$ FMLA	Quadratic equation solution	$ax^2 + bx + c = 0$
$\boxed{2}$ FMLA	Simultaneous linear equation with two unknowns	$\begin{cases} a_1x + b_1y = c_1 \\ a_2x + b_2y = c_2 \end{cases}$
$\boxed{3}$ FMLA	Simultaneous linear equation with three unknowns	$\begin{cases} a_1x + b_1y + c_1z = d_1 \\ a_2x + b_2y + c_2z = d_2 \\ a_3x + b_3y + c_3z = d_3 \end{cases}$
$\boxed{4}$ FMLA	Cosine theorem	$a = \sqrt{b^2 + c^2 - 2bc \cos A}$
$\boxed{5}$ FMLA	Heron's formula	$S = \sqrt{s(s-a)(s-b)(s-c)}$
$\boxed{6}$ FMLA	Area of a triangle	$S = \frac{1}{2} bc \sin A$
$\boxed{7}$ FMLA	Sine theorem (1)	$\frac{a}{\sin A} = 2R$
$\boxed{8}$ FMLA	Sine theorem (2)	$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = 2R$
$\boxed{9}$ FMLA	Rectangular-polar coordinate conversion	$r = \sqrt{x^2 + y^2}$ $\theta = \tan^{-1} \frac{y}{x}$
$\boxed{1}\boxed{0}$ FMLA	Polar-rectangular coordinate conversion	$x = r \cos \theta$ $y = r \sin \theta$
$\boxed{1}\boxed{1}$ FMLA	Logarithm with random base	$\log_r x = \frac{\log_{10} x}{\log_{10} r}$
$\boxed{1}\boxed{2}$ FMLA	Permutation	${}_nP_r = \frac{n!}{(n-r)!}$
$\boxed{1}\boxed{3}$ FMLA	Combination	${}_nC_r = \frac{n!}{r!(n-r)!}$
$\boxed{1}\boxed{4}$ FMLA	Repeated permutation	${}_n\Pi_r = n^r$
$\boxed{1}\boxed{5}$ FMLA	Repeated combination	${}_nH_r = \frac{(n+r-1)!}{r!(n-1)!}$
$\boxed{1}\boxed{6}$ FMLA	Sum of arithmetic progression	$S = \frac{n(2a + (n-1)d)}{2}$