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| Objective : | 1. Arithmetic operations: Compute the following quantities:   Area = pi \* r2  Where r =  2. Exponential and logarithms: Solve 3x = 17 for x.  3. Trigonometry: *y* = cosh2 *x −* sinh2 *x*, with *x* = 32*π*.  4. Complex Numbers: Check for Euler’s Formula by comparing LHS and RHS. |
| MATLAB  Code: | % 1. Arithmatic operators Area program  radius = pi^(1/3) - 1  AREA = pi \* radius^2  % 2. Exp and log  x = log(17) / log(3)  % 3. Trigo (y = cosh^2 x − sinh^2 x)  x = 32\*pi;  y = (cosh(x) )^2 - (sinh(x) )^2  % 4. Complex nos (Check the Euler’s Formula)  x = (pi/4)  res\_1 = exp(j\*x)  res\_2 = cos(x) + j\*sin(x)  if res\_1 == res\_2  disp('verified euler formula')  end |
| Output: | 1. radius =  0.4646  AREA =  0.6781  2. x =  2.5789  3. y =  0  4. x = 0.7854  res\_1 =  0.7071 + 0.7071i  res\_2 =  0.7071 + 0.7071i  verified euler formula |

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| Objective : |  |
| MATLAB  Code: | (Copy paste the editor file content) |
| Output: | (Content of command window is your output.) |

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