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## Sheet (1)

(1) Using MATLAB command window to calculate the following:

(a)  $a1=3+5+2$

(b)  $a2= 4 \times 22 + 6 \times 48 + 2 \times 82$

(c)  $a3=4^3$

(d)  $A = a1 + b2 \times c3$

(e)  $b1=2^2+3^2$

(f)  $b2=(3+5)^2$

(g)  $b3=6/3+ 1/4$

(h)  $c1=6\sqrt{3+ 1}\sqrt{4}$

(i)  $c2=(4+3)^{1/5}$

(j)  $c3=(2+3)^{1/5}$

(k)  $d=6/3$

(l)  $d1=6\sqrt{3}$

(m)  $3 e^d$

(n)  $3 \ln(d)$

(o)  $3 \sin(d1)$

(p)  $x= \sqrt{2}/2$

$$y = (1/\sqrt{2\pi}) e^{-x^2/2}$$

$$z = 20 \log_{10} y$$

(q)  $s_{1,2} = -\frac{b}{2a} \pm \frac{1}{2a} \sqrt{b^2 - 4ac}$  where  $a=2, b=10, c=12$

(r)  $B2 = [3.5 (5-4)^3 / 6 - 4.2 \times 7 / (5+4)^{0.25}] / (3+2^4)^{0.5}$

(2) write the output of the given MATLAB commands:

(a) `B3=rem(35,4)`

(b) `B4=rem(35,5)`

(c) `fix(2.6), floor(2.6), ceil(2.6), round(2.6)`

(d) `fix(2.2), floor(2.2), ceil(2.2), round(2.2)`

(e) `fix(-5.3), floor(-5.3), ceil(-5.3), round(-5.3)`

(f) `y1= 6 + 4*i, y2= 3 + 4*j`, change to polar form.

(g) `format long, pi`

(h) `format short, pi`

(i) `format short e, pi`

(j) `format short e, 1000000000`

(k) `format long e, 1000000000`

(l) `format long g, pi`

(m) `format short g, pi`

(n) `format short g, 1000000000`

(o) `format long eng, 1000000000`

(p) `format short eng, 1000000000`

(q) `format bank, pi`

(r) `format +, 5`

(s) `format +, -10`