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```
%HW#1
```

Q1

```
x=2;
y=5;
disp(['a)',num2str((y^3)*x/(y+x^2))])

disp(['b)',num2str((x-(y)^(1/2))^(1/2))]

disp(['c)',num2str(7/5*x*y)])

disp(['d)',num2str((pi-3/4)/x*y^(2/5))])
```

a)27.7778
b)0+0.48587i
c)14
d)2.2764

Q2

```
disp(' ')
x=exp(1);
y=pi;
z=[ ];
z=x;
x=y;
y=z;

disp(['x=',num2str(x)])
disp(['y=',num2str(y)])
```

x=3.1416
y=2.7183

Q3

```
disp(' ')
x=-1+3i;
```

```

y=6-7i;
disp(['a)',num2str(x+y)])
disp(['b)',num2str(x-y)])
disp(['c)',num2str(x*y)])
disp(['d)',num2str(x/y)])

```

a) $5-4i$
 b) $-7+10i$
 c) $15+25i$
 d) $-0.31765+0.12941i$

Q4

```

disp(' ')
a=1;
b=-1;
c=-6;
disp(['x^2-x-6=0' ...
    ' x=',num2str((-b+(b^2-4*a*c)^(1/2))/(2*a))])
disp([' ','num2str((-b-(b^2-4*a*c)^(1/2))/(2*a))'])

a=2;
b=-5;
c=-3;

disp(['2x^2-5x-3=0' ...
    ' x=',num2str((-b+(b^2-4*a*c)^(1/2))/(2*a))])
disp([' ','num2str((-b-(b^2-4*a*c)^(1/2))/(2*a))'])

```

$x^2-x-6=0 \quad x=3$
 $, -2$
 $2x^2-5x-3=0 \quad x=3$
 $, -0.5$

Q5

```

disp(' ')
x=10;

A1=x*(30-pi*x/2-x)/2;
A2=(1/2)*pi*(x/2)^2;
disp('x=10')
disp(['area of the window A=', num2str(A1+A2)])

disp('x=60/(2+pi)')
x=60/(2+pi);
A21=x*(30-pi*x/2-x)/2;
A22=(1/2)*pi*(x/2)^2;

```

```
disp(['area of the window A=' , num2str(A21+A22)])
```

```
x=10  
area of the window A=60.7301  
x=60/(2+pi)  
area of the window A=53.477
```

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