

40%

Question 1

```
clear all  
x=8.25;y=1.8;  
y^3+x
```

ans =

14.0820

```
(5*y)^(x-2*y)
```

ans =

2.7367e+04

```
exp(4*x*y)  
exp(4*x*y)
```

ans =

6.2675e+25

```
log10(y^x-x)
```

ans =

2.0770

$\frac{9}{10}$

-1

%question 3

```
clear all  
syms x  
solve(5*x^3-2*x^2+3*x-3)
```

ans =

```
root(z^3 - (2*z^2)/5 + (3*z)/5 - 3/5, z, 1)  
root(z^3 - (2*z^2)/5 + (3*z)/5 - 3/5, z, 2)  
root(z^3 - (2*z^2)/5 + (3*z)/5 - 3/5, z, 3)
```

$\frac{8}{15}$

question 4

Unrecognized function or variable 'question'.

```
Q=[2/sqrt(8) 2/sqrt(8);2/sqrt(8) -2/sqrt(8)]  
Q=[2/sqrt(8) 2/sqrt(8);2/sqrt(8) -2/sqrt(8)]  
↑
```

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Error: Unsupported use of the '=' operator. To compare values for equality, use '=='. To specify name-value arguments, check that name is a valid identifier with no surrounding quotes.

$x = [3 \ 4; -1 \ 0]$

$x =$

$\begin{bmatrix} 3 & 4 \\ -1 & 0 \end{bmatrix}$

$Q = [2/\sqrt{8} \ 2/\sqrt{8}; 2/\sqrt{8} \ -2/\sqrt{8}]$

$Q =$

$\begin{bmatrix} 0.7071 & 0.7071 \\ 0.7071 & -0.7071 \end{bmatrix}$

$Q^T = Q^{-1}$

$Q^T = Q^{-1}$

↑

Incorrect use of '=' operator. Assign a value to a variable using '=' and compare values for equality using '=='.

Did you mean:

$T = Q^{-1}$

$T =$

$\begin{bmatrix} 0.7071 & 0.7071 \\ 0.7071 & -0.7071 \end{bmatrix}$

$(Q^T Q) = (Q^T Q)$

$(Q^T Q) = (Q^T Q)$

↑

Incorrect use of '=' operator. Assign a value to a variable using '=' and compare values for equality using '=='.

$(Q^T Q) = (Q^T Q)$

$(Q^T Q) = (Q^T Q)$

↑

Incorrect use of '=' operator. Assign a value to a variable using '=' and compare values for equality using '=='.

$(Q^T Q)^6 = (Q^T Q)$

$(Q^T Q)^6 = (Q^T Q)$

↑

Incorrect use of '=' operator. Assign a value to a variable using '=' and compare values

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for equality using '=='.

```
(Q*X*Q^T)^6='(Q*X*Q^T)
(Q*X*Q^T)^6='(Q*X*Q^T)
↑
```

Incorrect use of '=' operator. Assign a value to a variable using '=' and compare values

for equality using '=='.

```
(Q*X*Q^T)^6=Q*X^6*Q^T
(Q*X*Q^T)^6=Q*X^6*Q^T
↑
```

Incorrect use of '=' operator. Assign a value to a variable using '=' and compare values

for equality using '=='.

```
(Q*X*Q^T)^6
```

Unrecognized function or variable 'X'.

Did you mean:

```
(Q*x*Q^T)^6
```

Error using ^

Incorrect dimensions for raising a matrix to a power. Check that the matrix is square and

the power is a scalar. To operate on each element of the matrix individually, use POWER

(.^) for elementwise power.

```
(Q*x*Q^T).^6
```

ans =

```
8.0000 512.0000
512.0000 512.0000
```

X

```
Q*X.^6*Q.^T
```

Unrecognized function or variable 'X'.

Did you mean:

```
Q*x.^6*Q.^T
```

ans =

```
1.0e+03 *
```

```
2.6708 + 0.0000i -1.8375 - 2.9446i
```

```
2.6697 + 0.0000i -1.8386 - 2.9446i
```

X

clear all

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%question 6

```
t=[22.8 22.6 22.4 25.1 21.6 24.6 21.7 21.9 21.7 22.8 23.2 21.9 24.8 22.2  
22.0];
```

```
xbar=mean(t),m=median(t),s=std(t,1)
```

xbar =

22.7533

m =

22.4000

s =

1.1354

15
15