

Quiz # 1

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Q1: If $b = 0.5$ and $c = 147$, write a MATLAB command using the correct **format** to get the output of b/c as 3.4014×10^{-3}

1.5/ >> b = 0.5, c = 147 format shortg
>> b/c
>> ans = 3.4014e-3

Q2: Write your MATLAB code to calculate $\frac{\sqrt[5]{8}}{\sin^2(60^\circ) - \log(14)}$, then write down the answer.

2.5/ >> 8^(1/5) / (sin(60*(pi/180))^2 - log10(14))
>> ans =
>> -1.3439
>>

Q3: (a) Write your MATLAB command to produce matrix B as follows: $B = \begin{bmatrix} 1 & 2 & 3 \\ 8 & 5 & 2 \\ \log(2) & \sin(\frac{3\pi}{2}) & \cos^{-1}(0.5) \end{bmatrix}$

>>

~~B = [1; 2; 3; 8; 5; 2; log10(2); sin(3*pi/2); acos(0.5)]~~

2.5/ B = [1; 3; 8; 5; 2; log10(2) sin(3*pi/2) acos(0.5)*180/pi]

(c) Write your MATLAB command to create submatrix A from matrix B as follows: $A = \begin{bmatrix} 2 & 3 \\ -1 & 60 \end{bmatrix}$

✓ >> ~~A = B([1; 3], [2; 3])~~
A = B([1; 3], [2; 3])

10/10 ✓

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Quiz # 2

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Given the following functions Y and Z

$$Y = \cos(\theta), \quad Z = \cos(\theta) \cdot \sin(\theta), \quad 0 \leq \theta \leq 4\pi$$

Plot Y (with green dashed line) and Z (with red dotted line) as a function of angle θ . Label your axes, use legend, and title. Write down the all used commands, and draw the plot on the given graph below.

on the same line

```
>> theta = 0:0.1:4*pi;
>> y = cos(theta);
>> z = cos(theta) * sin(theta);
>> plot(theta, y, 'g--', theta, z, 'r.', grid on, xlabel('theta'),
ylabel('y = cos(theta), z = cos(theta) * sin(theta)'), title('graph'))
>> legend('theta vs. y', 'theta vs. z')
```

y = cos(theta), z = cos(theta) * sin(theta)

graph

