MATLAB Assignment 1

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William Carden EGR 101-02 Due Date: 1/23/2025

Assignment 1, Part I

```
side_b = 81;
side_c = 45;
angle_alpha = 47;

side_a = sqrt(side_b^2 + side_c^2 - 2 * side_b * side_c * cosd(angle_alpha))
angle_beta = acosd((side_a^2 + side_c^2 - side_b^2) / (2 * side_a * side_c))
angle_gamma = acosd((side_a^2 + side_b^2 - side_c^2) / (2 * side_a * side_b))
```

```
side_a =
  60.118482641733273
angle_beta =
  99.808830626280368
angle_gamma =
  33.191169373719610
```

Assignment 1, Part II

```
n = 52;
r = 8;

combos = factorial(n) / (factorial(r) * factorial(n - r))
```

```
combos =
     7.525381500000001e+08
```

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