```
%Enter Data
x = [0,1,2,3,4,5];
y = [0, 2.1, 4.1, 5.9, 7.9, 10.2];
```

```
%Model Equation
model = 'm*x';
IV = 'x';
DV = 'y';
```

```
%Create and perform the curve fit
newfit = fittype(model, 'Independent', IV, 'Dependent', DV);
[result, gof] = fit(x', y', newfit, 'StartPoint', 1)
```

```
result =
     General model:
     result(x) = m*x
     Coefficients (with 95% confidence bounds):
       m =       2.011  (1.969, 2.053)
gof = struct with fields:
           sse: 0.0735
       rsquare: 0.9990
           dfe: 5
    adjrsquare: 0.9990
          rmse: 0.1212
```

```
 %Plot the fit and data points and create a plot objcect for formatting
 p = plot(result, x, y)
```

```
p =
  2×1 Line array:

  Line    (data)
  Line    (fitted curve)
```

```
 %style the data points
 p(1).MarkerSize = 10;
 p(1).Marker = 'square';
 p(1).MarkerFaceColor = '#34b7eb';
 p(1).MarkerEdgeColor = '#eb3434';

 %Style the line of best fit
 p(2).LineWidth = 2;
 p(2).Color = '#131414'
```

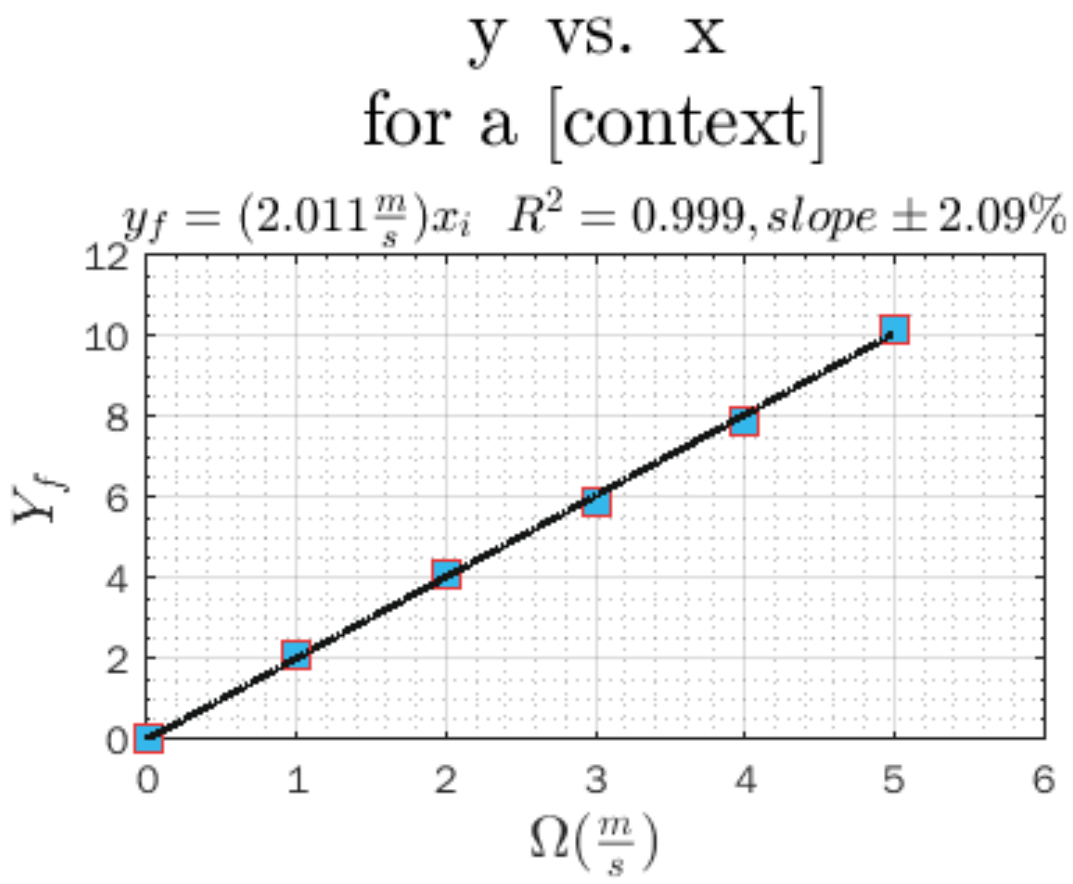
```
p =
  2×1 Line array:

  Line    (data)
  Line    (fitted curve)
```

```
 %Create graph object, set Latex formatting, and turn off legend
```

```
graph = gca
```

```
graph =
  Axes with properties:

            XLim: [0 5]
            YLim: [0 12]
          XScale: 'linear'
          YScale: 'linear'
    GridLineStyle: '-'
         Position: [0.1300 0.1100 0.7750 0.8150]
            Units: 'normalized'

  Show all properties
```

```
set(graph, 'defaultTextInterpreter', 'latex');
set(legend, 'visible', 'off');

%Format title & Subtitle
graph.Title.String = {'y\, vs.\, x', 'for a [context]'};
graph.Title.FontSize = 20;
%Subtitle, where we will place our equation and statistics (slope\pm =
%slope plus or minus a value. To get value, take average of range from
%result cfit (1.969 - 2.053)/2 and divide by slope (m) value.
graph.Subtitle.String = '$y_{f} = (2.011\frac{m}{s})x_{i}$\,\,\,\,$R^2 = 0.999, slope\
graph.Subtitle.FontSize = 13;

%Format x and y axes
graph.XLabel.Interpreter = 'latex';
graph.XLabel.String = '$\Omega (\frac{m}{s})$';
graph.XLabel.FontSize = 15;
graph.XLim = [0, 6];
graph.XGrid = 'on';
graph.XMinorGrid = 'on';
graph.XMinorTick = 'on';

graph.YLabel.Interpreter = 'latex';
graph.YLabel.String = '$Y_{f}$';
graph.YLabel.FontSize = 15;
graph.YLim = [0, 12];
graph.YGrid = 'on';
graph.YMinorGrid = 'on';
graph.YMinorTick = 'on';
```


y vs. x
for a [context]
$y_f = (2.011\frac{m}{s})x_i \quad R^2 = 0.999, slope \pm 2.09\%$
Y_f
$\Omega(\frac{m}{s})$
0
2
4
6
8
10
12
0
1
2
3
4
5
6