```
data = {{-4, -2}, {-2, 25}, {0, 34}, {2, 42}, {4, 56}}
```

```
{{-4, -2}, {-2, 25}, {0, 34}, {2, 42}, {4, 56}}
```

```
LinearModelFit[data, {1, x}, x]
```

```
FittedModel[ 31. + 6.65 x ]
```

```
%2["ParameterTable"]
```

	Estimate	Standard Error	t-Statistic	P-Value
1	31.	2.72152	11.3907	0.00145177
x	6.65	0.962202	6.91123	0.00620875

```
data2 = {{-4, 3}, {-2, -16}, {0, 6}, {2, 9}, {4, -8}}
```

```
{{-4, 3}, {-2, -16}, {0, 6}, {2, 9}, {4, -8}}
```

```
xs = data2[[All, 1]];
lhs1 = Total@Map[a * N@Cos[10 * #] ^ 2 + b * N@Sin[10 * #] * Cos[10 * #] &, xs];
rhs1 = Total@Map[#[[2]] * N@Cos[10 * #[[1]]] &, data2];
lhs2 = Total@Map[b * N@Sin[10 * #] ^ 2 + a * N@Sin[10 * #] * Cos[10 * #] &, xs];
rhs2 = Total@Map[#[[2]] * N@Sin[10 * #[[1]]] &, data2];
Solve[{rhs1 == lhs1, rhs2 == lhs2}, {a, b}]
```

```
{{a → 2.91456, b → 5.26672}}
```

```
Show[Plot[mod[x], {x, -4, 4}, PlotRange → All], ListPlot[Style[data2, Red]]]
```