**Questions**

Find the period and range of each of the following functions:

1. *f*(*x*) = 3 + 2 sin 5*x*
2. *f*(*x*) = 3 – 2 sin (π/3 – *x*)
3. *f*(*x*) = -1 + sin 3*x*
4. *f*(*x*) = 4 cos 2*x*
5. *f*(*x*) = 3 – 4 sin 2*x*

**Solutions**

Text

Description automatically generated

Sketch the graph of each of the following functions in the stated domain.

1. *y* = 5 + sin *x*, –2π ≤ *x* ≤ 2π
2. *y* = 2 sin ( x + π/2), –2π ≤ *x* ≤ 2π
3. *y* = 1 – 3 sin (2*x* - π/3), –2π ≤ *x* ≤ 2π
4. *y* = 3 – 2 sin (1/2*x* - π/2), –4π ≤ *x* ≤ 4π
5. *y* = 2 cos (2x + π/2), -π ≤ *x* ≤ π

Diagram

Description automatically generated  
Diagram

Description automatically generated

A picture containing text, whiteboard

Description automatically generated

Diagram

Description automatically generated