

# Comparing Linear APProximations to Calculator Computations

Session 23

$$f(n) \approx f(x_0) + f'(x_0)(n - x_0)$$

$$x_0 = 0$$

$$\sin(n) \approx 0 + \cos(0)n$$
$$= n$$

Calculator Val

$$\sin(0.01) \approx 0.01$$
$$0.00999$$

$$\sin(0.1) \approx 0.1$$
$$0.0998$$

$$\sin(1) \approx 1$$
$$0.84$$