Simpson's Rule is a numerical method for approximating the integral of a function between two limits, a and b. It's based on knowing the area under a parabola, or a plane curve.

Question 1:

Equation: x*(1 - x*x)

Value of h: 0.05
Answer: 0.250000

Value of h: 0.1
Answer: 0.250000

Value of h: 0.25
Answer: 0.250000

Question 2:

Equation: 1/(1 + x*x*x)

Value of h: 0.05
Answer: 0.835649

Value of h: 0.1
Answer: 0.835653

Value of h: 0.25
Answer: 0.835786

Question 3:

Equation: log(1 + x)

Value of h: 0.05
Answer: 0.386294

Value of h: 0.1
Answer: 0.386293

Value of h: 0.25
Answer: 0.386260