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>> bisection_method
Bisection Method
Wrtten by Zachary Ferguson

Q1a:
    f(x) = x^3 - 9
    n = 24
    r = 2.0800838172
    Forward error: 0.0000000058
    Backward error: 0.0000000754
Q1b:
    f(x) = 3x^3 + x^2 - x - 5
    n = 24
    r = 1.1697262228
    Forward error: 0.0000000029
    Backward error: 0.0000000396
Q1c:
    f(x) = cos^2(x) - x + 6
    n = 24
    r = 6.7760923207
    Forward error: 0.0000000044
    Backward error: 0.0000000080
Q3a:
    f(x) = 2x^3 - 6x - 1
    n = 24
    r1 = -1.6417835057
    Forward error: 0.0000000218
    Backward error: 0.0000002215
    n = 24
    r2 = -0.1682544053
    Forward error: 0.0000000035
    Backward error: 0.0000000203
    n = 24
    r3 = 1.8100379407
    Forward error: 0.0000000115
    Backward error: 0.0000001572
Q3b:
    f(x) = e^(x-2) + x^3 - x
    n = 24
    r1 = -1.0234821737
    Forward error: 0.0000000212
    Backward error: 0.0000000464
    n = 24
    r2 = 0.1638222635
    Forward error: 0.0000000202
    Backward error: 0.0000000154
    n = 24
    r3 = 0.7889414132
    Forward error: 0.0000000241
    Backward error: 0.0000000281
Q3c:
    f(x) = 1 + 5x - 6x^3 - e^(2x)
    n = 24
    r1 = -0.8180937469
    Forward error: 0.0000000124
    Backward error: 0.0000000924
    n = 24
    r2 = -0.0000000060
    Forward error: 0.0000000060
    Backward error: 0.0000000179
    n = 24
    r3 = 0.5063082874
    Forward error: 0.0000000010
    Backward error: 0.0000000053
Q4a:
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    f(x) = x^2 - A
    A = 2, (a, b) = (1, 2)
    n = 24
    r = 1.4142135680
    Forward error: 0.0000000056
    Backward error: 0.0000000158
Q4b:
    A = 3, (a, b) = (1, 2)
    n = 24
    r = 1.7320508063
    Forward error: 0.0000000013
    Backward error: 0.0000000045
Q4c:
    A = 5, (a, b) = (2, 3)
    n = 24
    r = 2.2360679805
    Forward error: 0.0000000030
    Backward error: 0.0000000135
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