

Note:

(i) you must show work, not just answers, for full credit

(ii) Questions (3) and (7) should be done according to the methods required by your own instructor.

1. $-\frac{40}{11}$

2. (a) $-\infty$ (b) 3 (c) 1 (d) 1 (e) -1

3. Ask your instructor.

4. (a) 53 (b) -7

5. (Note that this problem has been changed from the original.)

(a) $c^2 - 16$ (b) $4c - 11$ (c) 5 and -1

6. Since $f(x)$ is continuous, $f(-1) = -3$, and $f(0) = 1$, there is a root between -1 and 0 by the Intermediate Value Theorem.

7. Ask your instructor.

8. slope = $f'(1) = 2$

tangent line: $y = 2x - 2$

9. -24