

Question Sheet

1. Find the stationary points of $f(x) = -\frac{10}{3}x^3 + \frac{23}{2}x^2 - 12x - 4$, stating whether they are maxima, minima, or inflection points.
2. Find the stationary points of $f(x) = \frac{20}{3}x^3 + \frac{11}{2}x^2 - 3x + 3$, stating whether they are maxima, minima, or inflection points.
3. Find the stationary points of $f(x) = 6x^3 - \frac{9}{2}x^2 - 20x + 1$, stating whether they are maxima, minima, or inflection points.
4. Find the stationary points of $f(x) = 8x^3 + 24x^2 + 24x + 8$, stating whether they are maxima, minima, or inflection points.
5. Find the stationary points of $f(x) = -5x^3 + 4x^2 + 12x + 1$, stating whether they are maxima, minima, or inflection points.
6. Find the stationary points of $f(x) = -\frac{4}{3}x^3 - \frac{15}{2}x^2 + 25x$, stating whether they are maxima, minima, or inflection points.
7. Find the stationary points of $f(x) = x^3 - 12x^2 + 48x - 64$, stating whether they are maxima, minima, or inflection points.
8. Find the stationary points of $f(x) = -\frac{4}{3}x^3 + \frac{9}{2}x^2 + 9x - 5$, stating whether they are maxima, minima, or inflection points.
9. Find the stationary points of $f(x) = -\frac{5}{3}x^3 + \frac{33}{2}x^2 - 18x - 4$, stating whether they are maxima, minima, or inflection points.
10. Find the stationary points of $f(x) = -\frac{1}{3}x^3 + \frac{5}{2}x^2 + 6x + 5$, stating whether they are maxima, minima, or inflection points.