

EMCF 42

1. Give the y -coordinate of the centroid for the region bounded by $y = x^2$ and $y = 4$.
 - a. 2
 - b. $11/5$
 - c. $12/5$
 - d. $13/5$
 - e. $14/5$
 - f. None of these.
2. Give the x -coordinate of the centroid for the region bounded by $y = x^2$ and $y = 4$.
 - a. $-1/5$
 - b. $-1/10$
 - c. 0
 - d. $1/10$
 - e. $1/5$
 - f. None of these.
3. Give the y -coordinate of the centroid **for the region in the first quadrant** bounded by $y = x^2 + 1$ and $y = 3 - x^2$.
 - a. 2
 - b. $11/5$
 - c. $12/5$
 - d. $13/5$
 - e. $14/5$
 - f. None of these.
4. Give the x -coordinate of the centroid **for the region in the first quadrant** bounded by $y = x^2 + 1$ and $y = 3 - x^2$.
 - a. $1/8$
 - b. $1/4$
 - c. $3/8$
 - d. $1/2$
 - e. $5/8$
 - f. None of these.
5. Give the average value of the function $f(x) = x^2 - x$ over the interval $[0, 3]$.
 - a. $3/4$
 - b. 1
 - c. $5/4$
 - d. $3/2$
 - e. None of these.