Find the area of the shaded region analytically.

7) Find the area of the region(s) enclosed by the graphs of $x-y^{2}=0$ and $x+2 y^{2}=3$.
8) Which of the following gives the area of the region between the graphs of $y=x^{2}$ and $y=-x$ from $x=0$ to $x=3$ ?
A 2
B $9 / 2$
C $13 / 2$
D 13
E 27/2

Answers:

| 1) $1 / 12$ | $2) 4 / 3$ | 3) $128 / 15$ | 4) $22 / 15$ | 5) $5 / 6$ |
| :--- | :--- | :--- | :--- | :--- |
| 6$) 49 / 6$ | $7) 4$ | $8)$ |  |  |

