6. The function whose graph is $y = f^3$, and is shifted to the right 6 units is:

$y = f^3 - 6$

$y = (f + 6)^3$

$y = (f - 6)^3$

$y = f^3 + 6$

**Solution**

After shifting to the right 6 units, the function becomes: $y = (f - 6)^3$