Choose the correct answer

$$\int_0^1 x^3 \cos\left(x^4 + 2\right)dx \text{ and } u = x^4 + 2 \text{ then}$$

a) $4\int_2^3 \cos u\, du$ b) $-4\int_0^1 \cos u\, du$ c) $\dfrac{-1}{4}\int_2^3 \sin u\, du$

d) $\dfrac{1}{4}\int_0^1 \sin u\, du$ e) $\dfrac{1}{4}\int_2^3 \cos u\, du$

2. $\int x^3 \cos(x^4 + 2) dx$

3. $\int \dfrac{x^3}{(2+x^4)^5} dx$

4. $\int \dfrac{x^3}{2+x^4} dx$

5. $\int \dfrac{5}{x^2+81} dx$

6. $\int x\sec^2(2x) dx$

7. $\int e^{2x} \sin(3x) dx$

8. $\int \dfrac{x+5}{x^2+x-2} dx$

9. $\int \dfrac{4x+2}{x^2+x-2} dx$