

## VECTOR CALCULUS, Week 2 Extra

### 3.7,4.2-4.5 Practice Problems

**Ex:** Compute the most general antiderivative of the given  $f$  over the largest possible open subset  $I$  of  $R$ , and give  $I$ .

1.  $f(x) = \cos^2 x$

2.  $f(x) = \sin x \cos x$

**Ex:** Compute  $\int_0^3 |x^2 - 4| \, dx$

**Ex:** Compute  $\frac{d}{dx} \int_0^{x^2} e^{t^2} \, dt$ .