

**Analys i en variabel del 2, 764G07 Provkod KTR3.**

**Svar till dugga 3.**

**2015-12-02 kl 14.00-17.00**

1. a)  $\frac{1}{2} \arctan \frac{x}{2} + C.$

b)  $\frac{5e^3 - 2}{3}.$

c)  $\frac{1}{2}(\ln 2 - 1).$

d)  $\ln \left| \frac{x-1}{x+2} \right| + \frac{1}{x+2} + C.$

2.  $s = \frac{61}{27} \text{ (l.e.)}.$

3.  $V = \frac{\pi(\pi-1)}{2} \text{ (v.e.)}.$

4. a)  $\frac{1}{2}.$

b)  $\frac{\pi}{2}.$

5.  ~~$A = \frac{\pi}{4} \text{ (a.e.)}.$~~

$\frac{\pi^2}{2}.$