8 Math101 facit til 8. gang

8.1 Svarene er:

$$x\sin(x) + \cos(x) + c$$
, $\frac{1}{2}x^2\ln(x) - \frac{1}{4}x^2 + c$, $(x-1)e^x + c$

8.2 Svarene er:

$$\frac{1}{2}\sin(2x) + c,$$
 $-\frac{(1-x)^3}{3} + c,$ $\frac{1}{2}e^{2x-3} + c.$

8.3 Svarene er:

0,
$$2e^{-1} - 1$$
, $2\ln(2) - \frac{3}{4}$.

8.4 Svarene er:

$$-\frac{1}{6}$$
, $\frac{e^4-1}{2}$, $\ln(5)$.

8.5 Svarene er:

$$-(x+1)\cos(x) + \sin(x) + c,$$
 $2e^6.$

8.6 Svarene er:

$$\frac{\sqrt{2}}{6}$$
, $\frac{1}{6}$

8.7 Svarene er:

$$e^x(x^2 - 2x + 2) + c,$$
 $\pi^2 - 4.$

8.8 Svarene er:

$$\sqrt{2x-1} + c, \qquad \frac{\sqrt{2}}{2}$$

8.9 Svaret er: