

## Math 2260 Quiz 12.5 (Practice)

Name \_\_\_\_\_

*Points will be deducted for untidy or disorganized answers*

1. Determine whether each integral is convergent or divergent. Evaluate those which converge.

(a)  $\int_2^{\infty} \frac{1}{\sqrt{x+3}} dx$

(b)  $\int_{\pi/4}^{\pi/2} \frac{\cos x}{\sqrt{\sin x}} dx$

(c)  $\int_0^{\infty} \frac{1}{(x+2)(x+3)} dx$

(d)  $\int_0^{\infty} \frac{x}{(x+2)(x+3)} dx$

2. Evaluate

$$\int_0^{\infty} \frac{1}{\sqrt{x}(1+x)} dx$$