

## **Math 124 - Answers to preliminary test**

There were two versions of the test - exam A and exam B.

### **Exam A**

1.

- A.  $y^2 + 2y + 1$
- B.  $x^4$
- C.  $8(x+2)^3$
- D.  $\frac{x}{1+x}$
- E.  $e^{2t}$
- F.  $Ax + \frac{B}{x}$
- G.  $\log(MN)$
- H.  $\frac{1}{6}z^{-1}$  or  $(6z)^{-1}$
- I. 0

2.

$$\frac{-5}{2+n}$$

3.

$$\frac{8}{\sqrt{t+2}}$$

4.  $x = -6, 3$

5.  $w = 1/2$

6.

$$L = \frac{T^2 g}{(2\pi)^2}$$

7.  $p = \sqrt{3}, -\sqrt{3}, -5$

8.  $h = \sqrt[3]{10}$  or  $(10)^{1/3}$

9.  $t = 0, -9$

10.

$$y = \frac{5x - 2}{x^2 - 3}$$

**Exam B**

1.

- A.  $Ax + \frac{B}{x}$
- B.  $\log(MN)$
- C.  $\frac{1}{6}z^{-1}$  or  $(6z)^{-1}$
- D. 0
- E.  $y^2 + 2y + 1$
- F.  $x^4$
- G.  $8(x+2)^3$
- H.  $\frac{x}{1+x}$
- I.  $e^{2t}$

2.

$$\frac{-4}{3+n}$$

3.

$$\frac{11}{\sqrt{t+4}}$$

4.  $p = \sqrt{5}, -\sqrt{5}, -3$

5.  $x = -7, 3$

6.  $w = 2/5$

7.

$$L = 2\pi\sqrt{\frac{L}{g}}$$

8.  $h = \sqrt[3]{10}$  or  $(10)^{1/3}$

9.  $t = 0, -4$

10.

$$y = \frac{5x-2}{x^2-3}$$