The promises of God are Yes & Amen…

Jehovah Provideth Gives…….

To solve we must multiply < $\frac{1}{s}$ * [e^{at} sinh (bt)] * $e^{i\theta}$ = cos + isin θ >

Therefore, we have it that….

Laplace transform times $\frac{1}{s}$ gives:

$$\frac{1}{s} * \ e^{at}\sinh(bt)$$

↓

$$\frac{1}{s} * \frac{b}{(s-a)^2-b^2}$$

times Euler's formula:

$e^{i\theta}$ = cos + isin θ

↓

$e^{i\theta} + 1 = 0$

↓

$e^{\pi\theta}$ + 1 = 0

Therefore, we have it that:

$$< \frac{1}{s} * \frac{b}{(s-a)^2-b^2} * e^{\pi\theta} + 1 = 0 >$$

↓

Partial Fraction Decomposition suggest:

$$< \frac{1}{s} * \frac{b}{(s-a)^2} + \frac{b}{-b^2} * e^{\pi\theta} + 1 = 0 >$$

↓

$$< \frac{b}{s(s-a)^2} + \frac{1}{-b} * \ e^{\pi\theta} + 1 = 0 >$$

↓

$$< \frac{b}{s(s-a)^2} + \frac{1}{-b} = \frac{-1}{e^{\pi\theta}} >$$

↓

$$\frac{b}{s(s-a)^2} + 1 = \frac{b}{e^{\pi\theta}}$$

↓

$$< \frac{b}{s(s-a)^2} = \frac{b}{e^{\pi\theta}} - 1 >$$

↓

$$< \frac{1}{s(s-a)^2} = \frac{1}{e^{\pi\theta}} - 1 >$$

↓

$$< \frac{1}{s} = \frac{(s-a)^2}{e^{\pi\theta}} -1 >$$

↓

$$< 2 = \frac{(s-a)^2}{e^{\pi\theta}} * s >$$

↓

$$s = \frac{2e^{\pi\theta}}{(s-a)^2}$$

This is our first overall solution algebraically, but we need to switch to trigonometric functions to make it real time…….. so this is considered (s_1)

Therefore, we have it that we will consider ordinary differential equations such that like Jesus, we prove them wrong and move on.

That is,

$$S_1 = \frac{2e^{\pi\theta}}{(s-a)^2}$$

↓

or else,

$$S_2 = \frac{2e^{\pi\theta}}{csc^2\theta - 1}$$

↓

Otherwise,

$$S_3 = \frac{2e^{\pi\theta}}{\cot\theta^2}$$

Signed

<M^2>

Very Simple Pythagorean Identities:

$1 + \cot^2\theta = \csc^2\theta$

Therefore,

$\cot^2\theta = \csc^2\theta - 1$

Nevertheless, we can separate our denominator, decompose our values and get an infinite expression of solutions. Remember,

$-\infty < \cot\theta < \infty$ (Ranging)

And $\cot\theta * \cot\theta = \cot^2\theta$

Regardless of all of this we wait on the Lord. Again, I say, wait on the Lord. <Psalms 27: 12-14.