

ECE 102 HW1

LIANG, NEVIN

TOTAL POINTS

99 / 100

QUESTION 1

1 1a 3 / 3

✓ - 0 pts Correct

- 1.5 pts Insufficient proof
- 0.5 pts Wrong conclusion
- 1.5 pts Wrong proof
- 1 pts Misuse of annotations in proof

QUESTION 2

2 1b 3 / 3

✓ - 0 pts Correct

- 1.5 pts insufficient proof
- 1.5 pts wrong proof
- 1.5 pts Misuse of annotations

QUESTION 3

3 1c 4 / 4

✓ - 0 pts Correct

- 0.5 pts Signals should be added as the result of even/odd components.
- 1 pts Wrong even and odd components
- 0.5 pts Wrong even component
- 0.5 pts Wrong item odd component
- 4 pts Wrong
- 0.5 pts Even component does not include the constant

QUESTION 4

4 2a 10 / 10

✓ - 0 pts Correct

- 2.5 pts incorrect sequence of transformations
- 2.5 pts incorrect final answer
- 2.5 pts incorrect sequence of transformations
- 1 pts incorrect t intercept
- 1 pts incorrect time reversal

- 1 pts incorrect shift
- 1 pts incorrect compression
- 1 pts incorrect compression
- 1 pts incorrect y intercept
- 1 pts copied down the problem incorrectly

QUESTION 5

5 2b 5 / 5

✓ - 0 pts Correct

- 1.5 pts incorrect time shift
- 1.5 pts incorrect compression
- 2 pts incorrect order of shift and compression
- 4 pts incorrect final answer
- 5 pts no answer

QUESTION 6

6 3a 12 / 12

✓ - 0 pts Correct

- 1 pts i) incorrect or not found frequency
- 1 pts ii) incorrect or not found frequency
- 1 pts incorrect period
- 3 pts no answer for part iii
- 3 pts no or incorrect answer for part iv
- 3 pts iii) incorrect
- 12 pts no answer

QUESTION 7

7 3b 5 / 5

✓ - 0 pts Correct

- 2 pts partially correct
- 5 pts no answer

QUESTION 8

8 3c 5 / 5

✓ - 0 pts Correct

- 3 pts partially correct

- **3.5 pts** incorrect results
- **2.5 pts** correct but no prove
- **5 pts** incorrect or no answer

QUESTION 9

9 4a 15 / 15

✓ - **0 pts** Correct

- **1 pts** i. wrong energy result
- **1 pts** iii. wrong power result
- **1 pts** iii. wrong conclusion
- **2 pts** ii. wrong conclusion and energy result
- **1 pts** iii. no conclusion
- **5 pts** iii. No answer
- **1 pts** ii. wrong conclusion
- **3 pts** iii. wrong conclusion, no power result, no

calculations

- **1 pts** i. no energy result and calculations
- **3 pts** lack of analysis and calculations
- **2 pts** iii. wrong conclusion and power result
- **2 pts** ii. wrong conclusion and power result
- **1 pts** ii. wrong power result
- **2 pts** i. wrong conclusion and energy result
- **15 pts** No Answer
- **1 pts** i. no conclusion
- **1 pts** ii. no conclusion

QUESTION 10

10 4b 5 / 6

- **0 pts** Correct
- **4 pts** no answer for two properties proof.
- **2 pts** ii. wrong proof
- ✓ - **1 pts** ii. misuse of annotation
- **1 pts** iii. ambiguous proof
- **1 pts** ii. ambiguous proof
- **1 pts** i. insufficient proof
- **1 pts** ii. insufficient proof
- **1 pts** iii. wrong annotation
- **1 pts** ii. wrong formula
- **2 pts** iii. no answer
- **2 pts** ii. no answer
- **1 pts** iii. wrong formula
- **0 pts** Click here to replace this description.

QUESTION 11

11 5a 8 / 8

✓ - **0 pts** Correct

- **2 pts** Proof should not start from the conclusion.
- **4 pts** Incorrect proof
- **2 pts** Incomplete proof
- **8 pts** No answer

QUESTION 12

12 5b 8 / 8

✓ - **0 pts** Correct

- **2 pts** (b) i. Wrong answer
- **2 pts** (b) ii. Wrong answer
- **1 pts** (b) ii. Should simplify the answer
- **8 pts** No answer for 5.(b)
- **4 pts** No answer for 5.(b) ii

QUESTION 13

13 6a 5 / 5

✓ - **0 pts** Correct

- **2.5 pts** wrong plot
- **0 pts** There is no plot.
- **1.5 pts** There is no code
- **3 pts** wrong answer
- **1 pts** Incorrect range
- **5 pts** No answer

QUESTION 14

14 6b 5 / 5

✓ - **0 pts** Correct

- **2.5 pts** Wrong plot
- **0 pts** There is no plot
- **1.5 pts** There is no code
- **3 pts** wrong answer
- **1 pts** incorrect range
- **5 pts** no answer

QUESTION 15

15 6c 6 / 6

✓ - **0 pts** Correct

- **3 pts** Wrong plot
- **0 pts** No plot

- **3 pts** wrong answer
- **1 pts** incorrect range
- **6 pts** no answer

1. (a) If f is odd, $f(x) = -f(-x)$
 If g is odd, $g(x) = -g(-x)$

$$f(x) \cdot g(x) = h(x) = -f(-x) \cdot -g(-x) = f(-x) \cdot g(-x)$$

$$h(-x) = f(-x) \cdot g(-x) = h(x)$$

Thus, $h(x)$ is even \square

- (b) If f is odd, $f(x) = -f(-x)$
 g is even, $g(x) = g(-x)$

$$h = f \cdot g = -f(-x) \cdot g(-x) = -f(-x) \cdot g(-x)$$

$$h(-x) = f(-x) \cdot g(-x) = -h(x)$$

Thus, h is odd \square

- (c) Let's take a look @ 1: 1 is even

$$t \cos t: \begin{array}{l} t \text{ is odd} \\ \cos t \text{ is even} \end{array}$$

$$t \cos t \text{ is odd}$$

$$t^2 \sin(t): \begin{array}{l} t^2 \text{ is even} \\ \sin t \text{ is odd} \end{array}$$

$$t^2 \sin t \text{ is odd}$$

$$t^3 \sin t \cos t: \begin{array}{l} \sin t \text{ is odd} \\ \cos t \text{ is even} \end{array}$$

$$\begin{array}{l} \sin t \cos t \text{ is odd} \\ t^3 \text{ is odd} \end{array}$$

$$t^3 \sin t \cos t \text{ is even}$$

$$x(t) = x_e(t) + x_o(t)$$

$$x_e(t) = 1 + t^3 \sin t \cos t$$

$$x_o(t) = t \cos t + t^2 \sin t$$

11a 3 / 3

✓ - **0 pts** Correct

- **1.5 pts** Insufficient proof
- **0.5 pts** Wrong conclusion
- **1.5 pts** Wrong proof
- **1 pts** Misuse of annotations in proof

1. (a) If f is odd, $f(x) = -f(-x)$
 If g is odd, $g(x) = -g(-x)$

$$f(x) \cdot g(x) = h(x) = -f(-x) \cdot -g(-x) = f(-x) \cdot g(-x)$$

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$$t^2 \sin t \text{ is odd}$$

$$t^3 \sin t \cos t: \begin{array}{l} \sin t \text{ is odd} \\ \cos t \text{ is even} \end{array}$$

$$\begin{array}{l} \sin t \cos t \text{ is odd} \\ t^3 \text{ is odd} \end{array}$$

$$t^3 \sin t \cos t \text{ is even}$$

$$x(t) = x_e(t) + x_o(t)$$

$$x_e(t) = 1 + t^3 \sin t \cos t$$

$$x_o(t) = t \cos t + t^2 \sin t$$

2 1b 3 / 3

✓ - 0 pts Correct

- 1.5 pts insufficient proof

- 1.5 pts wrong proof

- 1.5 pts Misuse of annotations

1. (a) If f is odd, $f(x) = -f(-x)$
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$$f(x) \cdot g(x) = h(x) = -f(-x) \cdot -g(-x) = f(-x) \cdot g(-x)$$

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Thus, h is odd \square

- (c) Let's take a look @ 1: 1 is even

$t \cos t$: t is odd
 $\cos t$ is even

$t \cos t$ is odd

$t^2 \sin(t)$: t^2 is even
 $\sin t$ is odd

$t^2 \sin t$ is odd

$t^3 \sin t \cos t$: $\sin t$ is odd
 $\cos t$ is even

$\sin t \cos t$ is odd
 t^3 is odd

$t^3 \sin t \cos t$ is even

$$x(t) = x_e(t) + x_o(t)$$

$$x_e(t) = 1 + t^3 \sin t \cos t$$

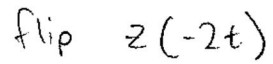
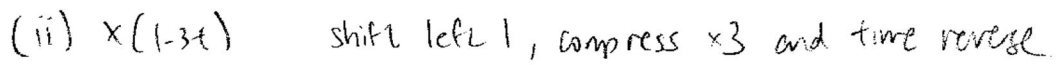
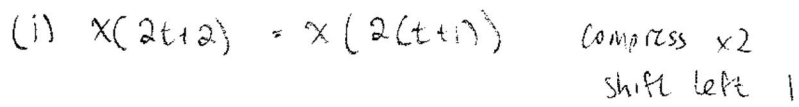
$$x_o(t) = t \cos t + t^2 \sin t$$

31c 4 / 4

✓ - 0 pts Correct

- 0.5 pts Signals should be added as the result of even/odd components.
- 1 pts Wrong even and odd components
- 0.5 pts Wrong even component
- 0.5 pts Wrong item odd component
- 4 pts Wrong
- 0.5 pts Even component does not include the constant

(a)

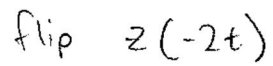
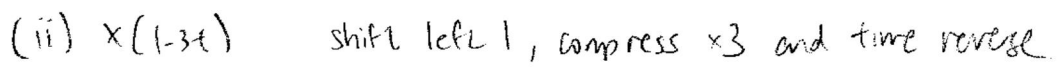
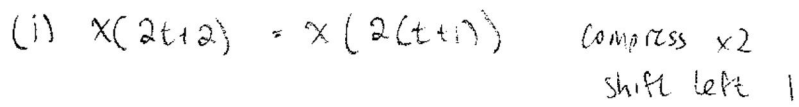

$$y(t) = z(-2t-2)$$

4 2a 10 / 10

✓ - 0 pts Correct

- 2.5 pts incorrect sequence of transformations
- 2.5 pts incorrect final answer
- 2.5 pts incorrect sequence of transformations
- 1 pts incorrect t intercept
- 1 pts incorrect time reversal
- 1 pts incorrect shift
- 1 pts incorrect compression
- 1 pts incorrect compression
- 1 pts incorrect y intercept
- 1 pts copied down the problem incorrectly

(a)


$$y(t) = z(-2t-2)$$

5 2b 5 / 5

✓ - 0 pts Correct

- 1.5 pts incorrect time shift
- 1.5 pts incorrect compression
- 2 pts incorrect order of shift and compression
- 4 pts incorrect final answer
- 5 pts no answer

3. i. periodic $\cos(\sqrt{2}\pi t) = \cos(2\pi + \sqrt{2}\pi t)$

$$T = \frac{2\pi}{\sqrt{2}\pi} = \boxed{\sqrt{2}}$$

$$f = \frac{1}{T} = \boxed{\frac{\sqrt{2}}{2}}$$

ii. periodic $\sin^2(3\pi t + 3)$

period of $\sin^2 = \pi$

$$\frac{\pi}{3\pi} = \boxed{\frac{1}{3}}$$

$$f = \boxed{3}$$

iii. not periodic $x(t) \rightarrow 0$ as $t \rightarrow \infty$

iv. not periodic around 0

(b) $x(T_0) = x(0) = x(-T_0)$

$\frac{1}{2}$ periodic

but, $x(T_0) = -x(-T_0)$

Thus, $x(T_0) = \boxed{0}$

(c) $x(t) = x_e(t) + x_o(t)$

$$x_e(t) = \frac{1}{2}(x(t) + x(-t))$$

yes

$x(t)$ periodic, so $x(t) = x(t+k)$

$$x_e(t) = x_e(t+k) \quad \frac{1}{2} \quad x_e(t+k) = \frac{1}{2}(x(t+k) + x(-t-k))$$

$$x_e(t) \text{ periodic so } x_o(t) \text{ too} \quad = \frac{1}{2}(x(t) + x(-t))$$

6 3a 12 / 12

✓ - 0 pts Correct

- 1 pts i) incorrect or not found frequency
- 1 pts ii) incorrect or not found frequency
- 1 pts incorrect period
- 3 pts no answer for part iii
- 3 pts no or incorrect answer for part iv
- 3 pts iii) incorrect
- 12 pts no answer

3. i. periodic $\cos(\sqrt{2}\pi t) = \cos(2\pi + \sqrt{2}\pi t)$

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$$x_e(t) \text{ periodic so } x_o(t) \text{ too} \quad = \frac{1}{2}(x(t) + x(-t))$$

73b 5 / 5

✓ - 0 pts Correct

- 2 pts partially correct

- 5 pts no answer

3. i. periodic $\cos(\sqrt{2}\pi t) = \cos(2\pi + \sqrt{2}\pi t)$

$$T = \frac{2\pi}{\sqrt{2}\pi} = \boxed{\sqrt{2}}$$

$$f = \frac{1}{T} = \boxed{\frac{\sqrt{2}}{2}}$$

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period of $\sin^2 = \pi$

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Thus, $x(T_0) = \boxed{0}$

(c) $x(t) = x_e(t) + x_o(t)$

$$x_e(t) = \frac{1}{2}(x(t) + x(-t))$$

yes

$x(t)$ periodic, so $x(t) = x(t+k)$

$$x_e(t) = x_e(t+k) \quad \frac{1}{2} \quad x_e(t+k) = \frac{1}{2}(x(t+k) + x(-t-k))$$

$$x_e(t) \text{ periodic so } x_o(t) \text{ too} \quad = \frac{1}{2}(x(t) + x(-t))$$

8 3c 5 / 5

✓ - **0 pts** Correct

- **3 pts** partially correct

- **3.5 pts** incorrect results

- **2.5 pts** correct but no prove

- **5 pts** incorrect or no answer

4)

a) i. Energy signal?

$$\begin{aligned} \int_{-\infty}^{\infty} (e^{-|t|})^2 dt &= \int_{-\infty}^{\infty} e^{-2|t|} dt = 2 \int_{-\infty}^0 e^{-2(-t)} dt \\ &= 2 \int_{-\infty}^0 e^{2t} dt = e^{2t} \Big|_{-\infty}^0 = \boxed{1} \end{aligned}$$

Power signal?

$$\begin{aligned} \lim_{T \rightarrow \infty} \frac{1}{2T} \int_{-T}^T e^{-2|t|} dt &= \lim_{T \rightarrow \infty} \frac{1}{2T} \cdot 2 \cdot \int_{-T}^0 e^{2t} dt \\ &= \lim_{T \rightarrow \infty} \frac{1}{T} \cdot \frac{1}{2} (e^{2t} \Big|_{-T}^0) \\ &= \lim_{T \rightarrow \infty} \frac{1}{2T} (1 - e^{-2T}) = 0 \end{aligned}$$

Not a Power Signal

ii. Energy signal?

$$\int_{-\infty}^{\infty} 0 dt + \int_1^{\infty} \frac{1}{t} dt = \infty, \quad \boxed{\text{not an energy signal}}$$

Power signal?

$$\lim_{T \rightarrow \infty} \frac{1}{2T} \int_1^T \frac{1}{t} dt = \lim_{T \rightarrow \infty} \frac{1}{2T} \cdot \ln(T) = 0, \quad \boxed{\text{not a power signal}}$$

iii. Energy signal?

$$\int_0^{\infty} (1 + e^{-t}) dt = t + (-e^{-t}) \Big|_0^{\infty} = \infty$$

not an energy signal

$$\lim_{T \rightarrow \infty} \frac{1}{2T} \int_0^T (1 + e^{-t}) dt = \lim_{T \rightarrow \infty} \frac{1}{2T} (t - e^{-t}) \Big|_0^T = \lim_{T \rightarrow \infty} \frac{T - e^{-T} + 1}{2T} = \boxed{\frac{1}{2}}$$

9 4a 15 / 15

✓ - 0 pts Correct

- 1 pts i. wrong energy result
- 1 pts iii. wrong power result
- 1 pts iii. wrong conclusion
- 2 pts ii. wrong conclusion and energy result
- 1 pts iii. no conclusion
- 5 pts iii. No answer
- 1 pts ii. wrong conclusion
- 3 pts iii. wrong conclusion, no power result, no calculations
- 1 pts i. no energy result and calculations
- 3 pts lack of analysis and calculations
- 2 pts iii. wrong conclusion and power result
- 2 pts ii. wrong conclusion and power result
- 1 pts ii. wrong power result
- 2 pts i. wrong conclusion and energy result
- 15 pts No Answer
- 1 pts i. no conclusion
- 1 pts ii. no conclusion

b)

$$x(t) = \text{even} \Rightarrow x(t) = x(-t)$$

$$y(t) = \text{odd} \Rightarrow y(t) = -y(-t)$$

$$f(t) = x(t) \cdot y(t) = -x(-t) \cdot y(-t) = -f(-t)$$

so $f(t)$ is odd.

$$\int_{-T}^0 z(t) dt + \int_0^T z(t) dt = \int_{-T}^0 -z(-t) dt + \int_0^T z(t) dt$$

$$= \int_0^T -z(t) dt + \int_0^T z(t) dt$$

$$= \int_0^T -z(t) dt + \int_0^T z(t) dt = \boxed{0}$$

$$E_{x_e} = \int_{-\infty}^{\infty} |x_e(t)|^2 dt \quad E_{x_o} = \int_{-\infty}^{\infty} |x_o(t)|^2 dt$$

$$E_{x_e} + E_{x_o} = \int_{-\infty}^{\infty} x_e(t)^2 + x_o(t)^2 dt = \int_{-\infty}^{\infty} (x_e(t) + x_o(t))^2 - 2x_e(t)x_o(t) dt$$

$$= \int_{-\infty}^{\infty} E_x^2 - 2 \cdot f_o(x) dt = \int_{-\infty}^{\infty} E_x^2 dt \quad \text{1/2 part (a) ii}$$

$$5. (a) i. e^{j\theta} = \cos\theta + j\sin\theta \quad e^{-j\theta} = \cos(-\theta) + j\sin(-\theta) = \cos\theta - j\sin(\theta)$$

$$\cos\theta = \frac{e^{j\theta} + e^{-j\theta}}{2} \quad \sin\theta = \frac{e^{j\theta} - e^{-j\theta}}{2j}$$

$$\cos^2\theta + \sin^2\theta = \frac{e^{2j\theta} + e^{-2j\theta} + 2e^0}{4} + \frac{e^{2j\theta} + e^{-2j\theta} - 2e^0}{4} = \boxed{1}$$

10 4b 5 / 6

- 0 pts Correct
- 4 pts no answer for two properties proof.
- 2 pts ii. wrong proof
- ✓ - 1 pts ii. misuse of annotation
- 1 pts iii. ambiguous proof
- 1 pts ii. ambiguous proof
- 1 pts i. insufficient proof
- 1 pts ii. insufficient proof
- 1 pts iii. wrong annotation
- 1 pts ii. wrong formula
- 2 pts iii. no answer
- 2 pts ii. no answer
- 1 pts iii. wrong formula
- 0 pts [Click here to replace this description.](#)

b)

$$x(t) = \text{even} \Rightarrow x(t) = x(-t)$$

$$y(t) = \text{odd} \Rightarrow y(t) = -y(-t)$$

$$f(t) = x(t) \cdot y(t) = -x(-t) \cdot y(-t) = -f(-t)$$

so $f(t)$ is odd.

$$\int_{-T}^0 z(t) dt + \int_0^T z(t) dt = \int_{-T}^0 -z(-t) dt + \int_0^T z(t) dt$$

$$= \int_0^T -z(t) dt + \int_0^T z(t) dt$$

$$= \int_0^T -z(t) dt + \int_0^T z(t) dt = \boxed{0}$$

$$E_{x_e} = \int_{-\infty}^{\infty} |x_e(t)|^2 dt \quad E_{x_o} = \int_{-\infty}^{\infty} |x_o(t)|^2 dt$$

$$E_{x_e} + E_{x_o} = \int_{-\infty}^{\infty} x_e(t)^2 + x_o(t)^2 dt = \int_{-\infty}^{\infty} (x_e(t) + x_o(t))^2 - 2x_e(t)x_o(t) dt$$

$$= \int_{-\infty}^{\infty} E_x^2 - 2 \cdot f_o(x) dt = \int_{-\infty}^{\infty} E_x^2 dt \quad \text{1/2 part (a) ii}$$

$$5. (a) i. e^{j\theta} = \cos\theta + j\sin\theta \quad e^{-j\theta} = \cos(-\theta) + j\sin(-\theta) = \cos\theta - j\sin(\theta)$$

$$\cos\theta = \frac{e^{j\theta} + e^{-j\theta}}{2} \quad \sin\theta = \frac{e^{j\theta} - e^{-j\theta}}{2j}$$

$$\cos^2\theta + \sin^2\theta = \frac{e^{2j\theta} + e^{-2j\theta} + 2e^0}{4} + \frac{e^{2j\theta} + e^{-2j\theta} - 2e^0}{4} = \boxed{1}$$

$$(ii) e^{j\theta} = \cos \theta + j \sin \theta$$

$$e^{j\psi} = \cos \psi + j \sin \psi$$

$$e^{j(\theta+\psi)} = \cos(\theta+\psi) + j \sin(\theta+\psi)$$

$$= e^{j\theta} \cdot e^{j\psi} = \cos \theta \cos \psi - \sin \theta \sin \psi + j \cos \theta \sin \psi + j \sin \theta \cos \psi$$

real parts equal real parts

$$\text{so } \cos(\theta+\psi) = \cos \theta \cos \psi - \sin \theta \sin \psi$$

$$(b) (i) x = (5 + j2) \cdot (\cos(t+2) + j \sin(t+2))$$

$$\text{Real}(x) = 5 \cdot \cos(t+2) - \sqrt{2} \cdot (\sin(t+2))$$

$$y = \frac{1}{2-j} = \frac{2+j}{4+1} = \frac{2+j}{5} \quad \text{Real}(y) = \frac{2}{5}$$

$$(ii) (5+j2) e^{j(t+2)}$$

$$|5+j2| = \sqrt{25+2} = \sqrt{27}$$

$$\theta = \tan^{-1}\left(\frac{2}{5}\right)$$

$$y(t) = \frac{2+j}{5}$$

$$|x(t)| = \sqrt{27}$$

$$\text{phase}(x(t)) = (t+2) + \tan^{-1}\left(\frac{2}{5}\right)$$

$$|y(t)| = \sqrt{\frac{4}{25} + \frac{1}{25}} = \frac{\sqrt{5}}{5}$$

$$\text{phase}(y) = \tan^{-1}\left(\frac{1}{2}\right)$$

11 5a 8 / 8

✓ - 0 pts Correct

- 2 pts Proof should not start from the conclusion.
- 4 pts Incorrect proof
- 2 pts Incomplete proof
- 8 pts No answer

$$(ii) e^{j\theta} = \cos \theta + j \sin \theta$$

$$e^{j\psi} = \cos \psi + j \sin \psi$$

$$e^{j(\theta+\psi)} = \cos(\theta+\psi) + j \sin(\theta+\psi)$$

$$= e^{j\theta} \cdot e^{j\psi} = \cos \theta \cos \psi - \sin \theta \sin \psi + j \cos \theta \sin \psi + j \sin \theta \cos \psi.$$

real parts equal real parts

$$\text{so } \cos(\theta+\psi) = \cos \theta \cos \psi - \sin \theta \sin \psi.$$

$$(b) (i) x = (5 + j\sqrt{2}) \cdot (\cos(t+2) + j \sin(t+2))$$

$$\text{Real}(x) = 5 \cdot \cos(t+2) - \sqrt{2} \cdot (\sin(t+2))$$

$$y = \frac{1}{2-j} = \frac{2+j}{4+1} = \frac{2+j}{5} \quad \text{Real}(y) = \frac{2}{5}$$

$$(ii) (5+j\sqrt{2}) e^{j(t+2)}$$

$$|5+j\sqrt{2}| = \sqrt{25+2} = \sqrt{27}$$

$$\theta = \tan^{-1}\left(\frac{\sqrt{2}}{5}\right)$$

$$y(t) = \frac{2+j}{5}$$

$$|x(t)| = \sqrt{27}$$

$$\text{phase}(x(t)) = (t+2) + \tan^{-1}\left(\frac{\sqrt{2}}{5}\right)$$

$$|y(t)| = \sqrt{\frac{4}{25} + \frac{1}{25}} = \frac{\sqrt{5}}{5}$$

$$\text{phase}(y) = \tan^{-1}\left(\frac{1}{2}\right)$$

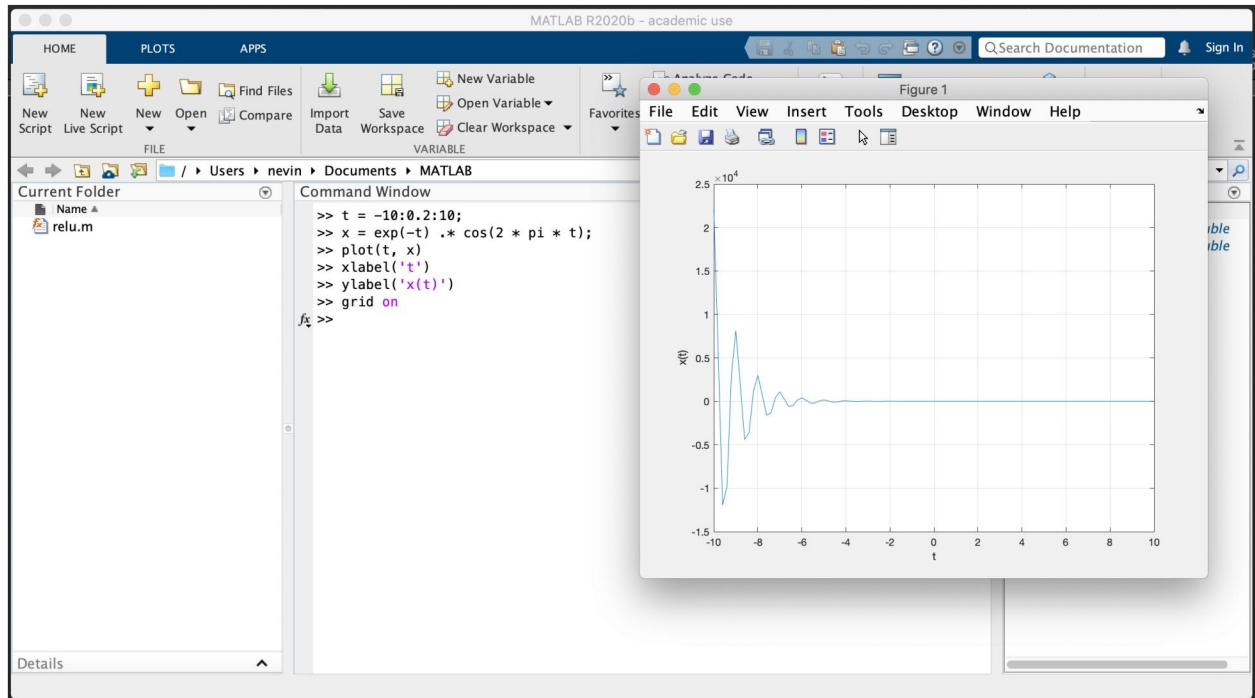
12 5b 8 / 8

✓ - 0 pts Correct

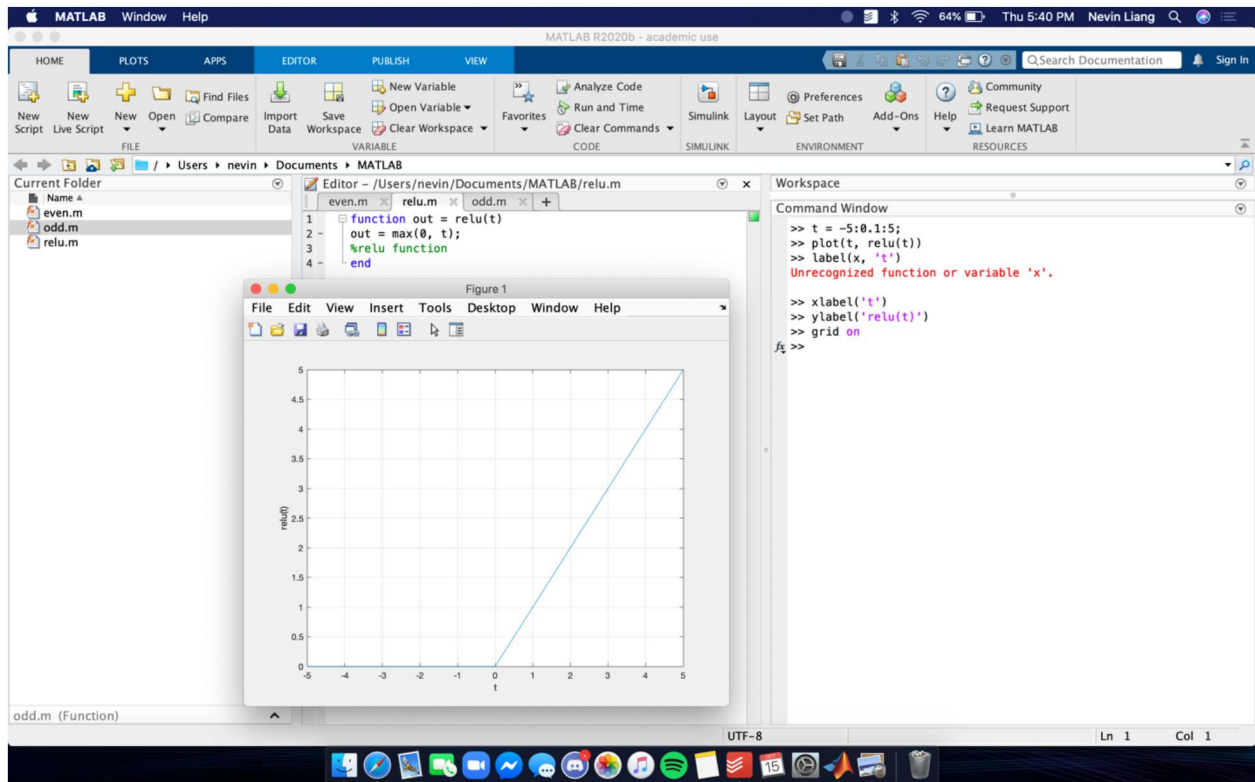
- 2 pts (b) i. Wrong answer
- 2 pts (b) ii. Wrong answer
- 1 pts (b) ii. Should simplify the answer
- 8 pts No answer for 5.(b)
- 4 pts No answer for 5.(b) ii

6.

a



b



13 6a 5 / 5

✓ - **0 pts** Correct

- **2.5 pts** wrong plot

- **0 pts** There is no plot.

- **1.5 pts** There is no code

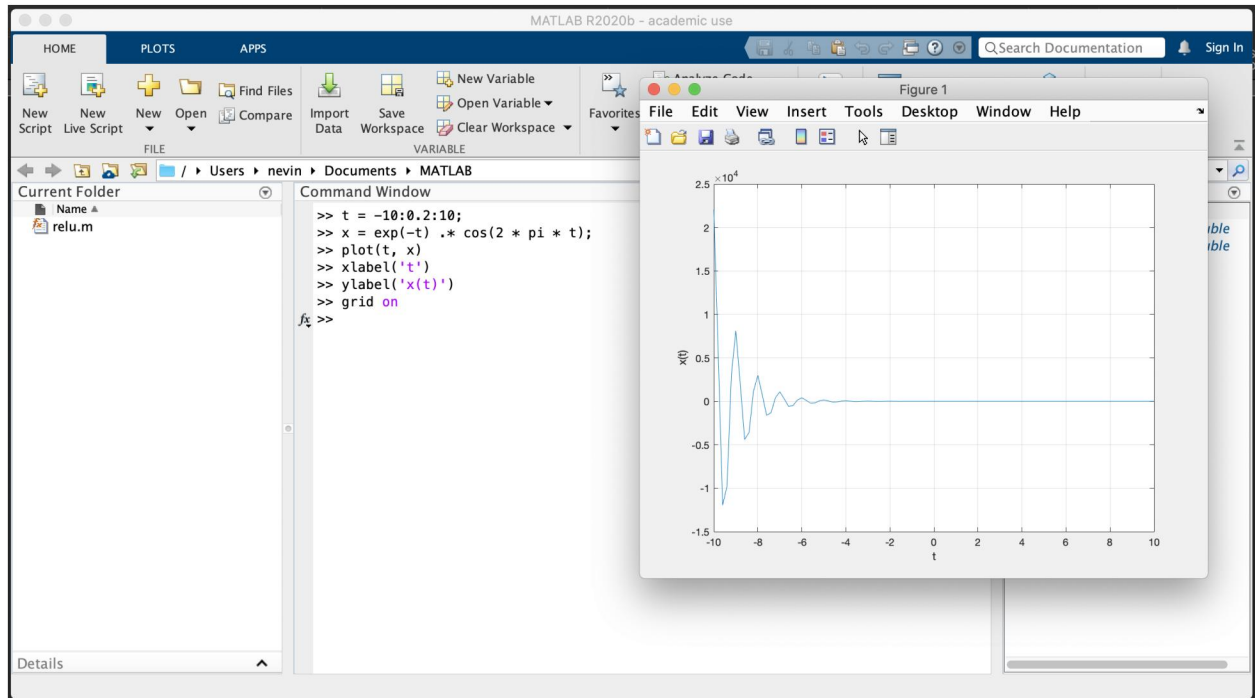
- **3 pts** wrong answer

- **1 pts** Incorrect range

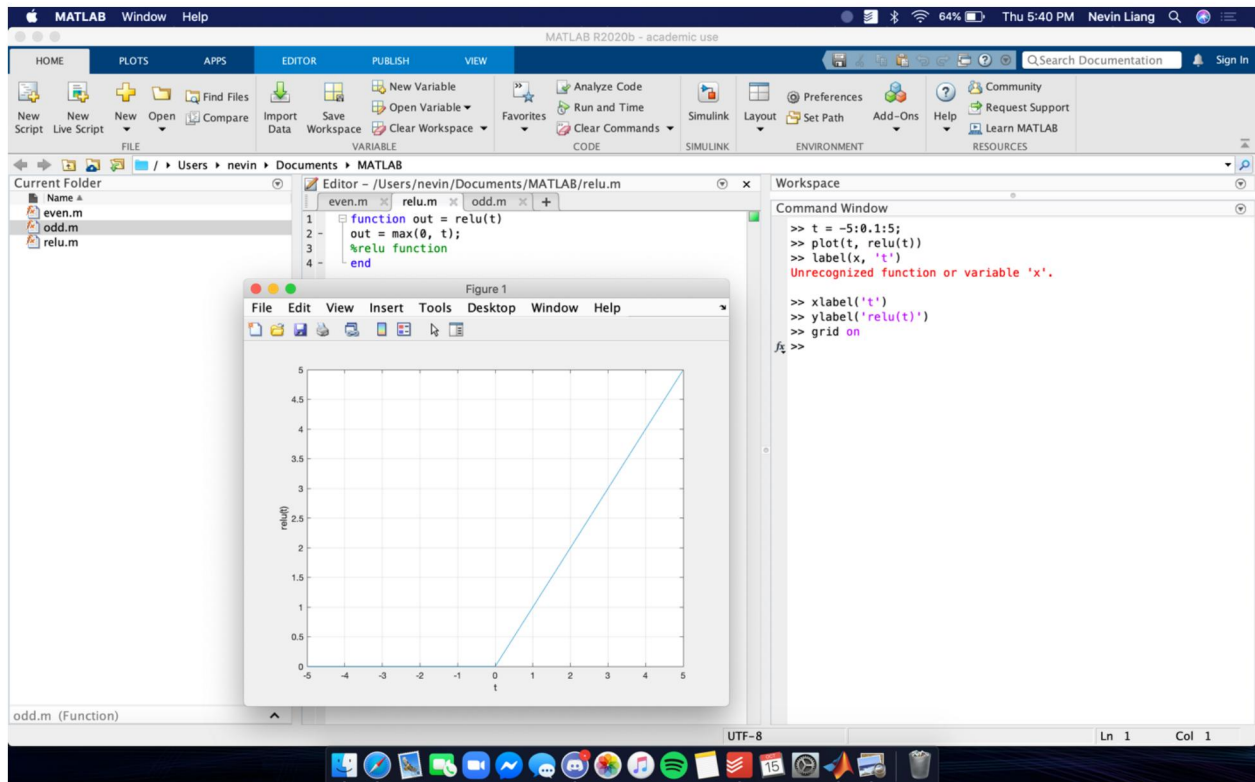
- **5 pts** No answer

6.

a



b



14 6b 5 / 5

✓ - **0 pts** Correct

- **2.5 pts** Wrong plot

- **0 pts** There is no plot

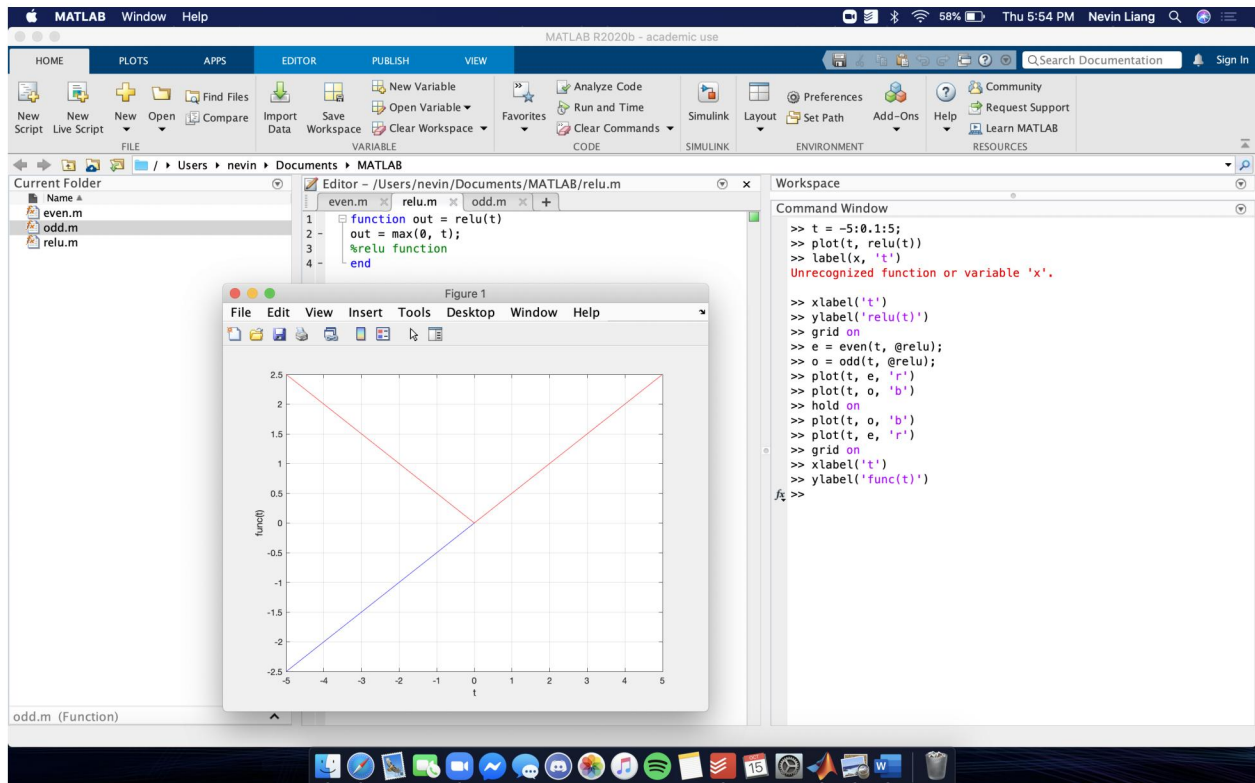
- **1.5 pts** There is no code

- **3 pts** wrong answer

- **1 pts** incorrect range

- **5 pts** no answer

C



```
Editor - /Users/nevin/Documents/MATLAB/odd.m

1 function out = odd(t, f)
2 out = 1/2 * (f(t) - f(-t));
3 %odd function
4 end
```

```
Editor - /Users/nevin/Documents/MATLAB/even.m

1 function out = even(t, f)
2 out = 1/2 * (f(t) + f(-t));
3 %even function
4 end
```

15 6C 6 / 6

✓ - 0 pts Correct

- 3 pts Wrong plot

- 0 pts No plot

- 3 pts wrong answer

- 1 pts incorrect range

- 6 pts no answer