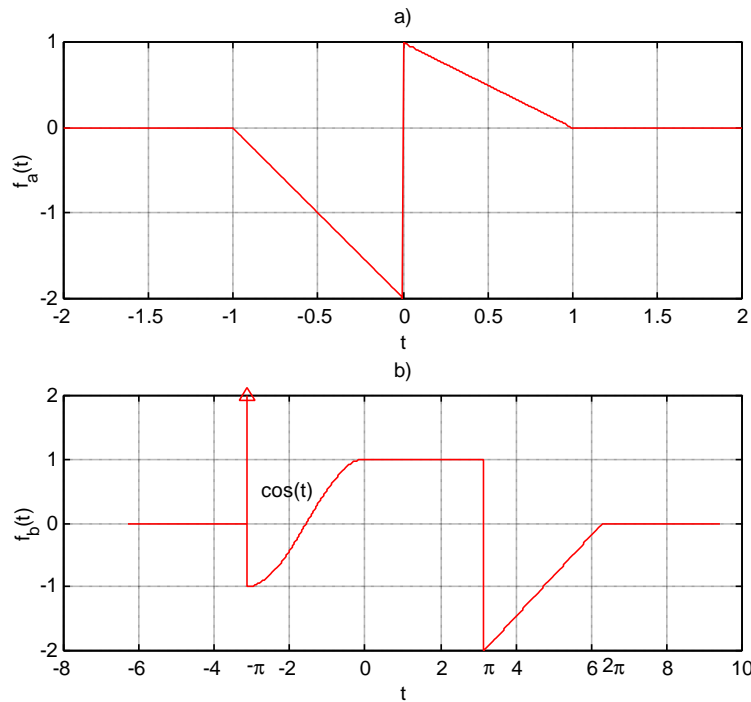


- 1) E1.8
- 2) E1.9
- 3) E1.10
- 4) E1.13
- 5) P1.4-1 (sketch by hand **and** with matlab using subplot to get all four plots on one page)
- 6) Express the following signals with a single expression valid for all t.



- 7) P1.4-6
- 8) P1.5-1a,b,e
- 9) P1.7-1a,b,e
- 10) P1.7-2a,b,c
- 11) Determine if the system described by the equation below is linear or nonlinear and time-invariant or time-varying where $f(t)$ is the system input and $y(t)$ is the system output.

$$\frac{d^2 y(t)}{dt^2} + \frac{1}{t} \left(\frac{dy(t)}{dt} \right)^2 - 2y(t) = 3 \frac{df(t)}{dt} - f(t)$$