

# Homework Section 6.1 - Due MONDAY 7th November

1. In this question, state whether  $f(x)$  is a one-to-one function. If it is one-to-one, what is its inverse?
  - (a)  $f(x) = 3x$
  - (b)  $f(x) = x^3 - x$
2. #2 on page 269.
3. #8 on page 270.
4. #16 on page 270.
5. #20 on page 270.
6. #78 on page 272.
7. #98 on page 272.
8. Write down *all* possible values of  $\theta$  satisfying the equation  $\sin \theta = \frac{1}{2}$ .  
Write down *all* possible values of  $\theta$  satisfying the equation  $\arcsin \frac{1}{2} = \theta$ .  
(Hint: Check range)
9. What is the domain and range of  $\arcsin(\sin \theta)$ ? Is it periodic?