Homework Section 6.1 - Due 8th April

There is an envelope outside my office for you to turn in this homework.

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 θ satisfying the equation $\sin\theta = \frac{1}{2}$.
   Write down *all* possible values of θ 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?