

### Set 3

#### 4.1

> half xs = splitAt (length xs `div` 2) xs

#### 4.2

a)

> safe tail xs = if null xs then [] else tail xs

b)

> safetail xs | null xs = []  
> | otherwise = tail xs

c)

> safetail [] = []  
> safetail xs = tail xs

#### 4.3

1)

False OR False = False  
False OR True = True  
True OR False = True  
True OR True = True

2)

False OR False = False  
\_ OR \_ = True

3)

False OR b = b  
True OR \_ = True

4)

b OR c | b == c = b  
| otherwise = True

#### 4.6

mult = \x -> (\y -> (\z -> x \* y \* z))