

## MNU 4-07a

## Homework 3

## Gold Level

### Outcome 1

### Changing recurring decimals to fractions

Express the following recurring decimals as fractions...

1  $0.5\dot{4}$       2  $0.3\dot{8}\dot{5}$

3  $0.7\dot{3}$       4  $0.7\dot{2}\dot{9}$

5  $0.50\dot{9}$       6  $0.3\dot{7}$

### Outcome 2

### Percentage increase/decrease over time

Calculate the following after appreciation/depreciation...

1 18% increase p.a.  
Amount = £9000  
Amount after 2 years?

2 6% increase p.a.  
Value = £680  
Value after 3 years?

3 4% increase p.a.  
Population = 50 000  
Population after 4 years?

4 5% decrease p.a.  
Cost = £800  
Cost after 10 years?

5 30% decrease per hour  
Temperature = 19°C  
Temperature after 4 hours?

6 41% decrease p.a.  
Value = £15 000  
Value after 2 years?

### Outcome 3 - Expressing one value as a % of the other

1 Cari bought a mobile phone for £800. She sold it a few months later for £700. Calculate her loss as a percentage of what she paid for the phone.



2 Robert is growing a sunflower. One week its height increased from 80 centimetres to 88 centimetres. Calculate the percentage increase in the sunflower's height.



3 During a sale the price of a roll of wallpaper is reduced from £5.60 to £4.20. Calculate the percentage reduction in the price of the roll of wallpaper.



4 A market trader bought ten "hi-vis" jackets for £150. He sells them for £18 each. Express his profit as a percentage of what he paid for the jackets.

