

class Date

{

public short Day { get; }

public short Month { get; }

public short Year { get; }

public Date (short dd, short mm, short yy)

{

Day = dd;

Month = mm;

Year = yy;

}

public void ~~invariant~~ ClassInvariant ()

{

Contract.Invariant (this.Day >= 0)

Contract.Invariant (this.Month >= 0)

Contract.Invariant (this.Year >= 0)

}

}

### 5.3

$$m+n == n+m$$

From the lecture notes, we know that zero-left and zero-right hold, i.e. for some  $b$ , using zero-left and zero-right, we know that

$$\text{zero} + b == b \quad \text{and that} \quad b + \text{zero} == b$$

therefore  $\text{zero} + b == b + \text{zero}$ , since as ~~both~~ both R.H.S (Right hand side) terms are equal, we can equate the left hand terms, therefore this holds for two integers zero and  $b$  which are