

## Solution 40 Test ( Conditional Expressions )

### Solution 40 ( c ) - viewed function with conditional

Recursive definition using conditional expression:

viewed  $i\dot{i} = i\dot{i}$

viewed  $i\dot{x}_i^s = ifx.3 = yes then < x >^v iewed else viewed s$

### Solution 40 ( d ) - cumulative<sub>total</sub> recursive function

$$\frac{\text{cumulative}_{total} : \text{seq Title} * \text{Length} * \text{Viewed} \rightarrow N}{\text{cumulative}_{total}(\langle \rangle) = 0}$$

**Note:** forall with semicolon-separated bindings not yet supported

### Solution 41 ( c ) - 479<sub>courses</sub> with conditional

forall  $x : \text{Entry}; s : \text{seq Entry} \text{ ---}$

479<sub>courses</sub>( $\langle \rangle$ ) =  $\langle \rangle$

479<sub>courses</sub>( $\langle x \rangle^s$ ) =  $ifx.3 = 479 then < x >^4 79_{courses} else 479_{courses} s$

### Solution 41 ( d ) - total function

forall  $x : \text{Entry}; s : \text{seq Entry} \text{ ---}$

total ( $i\dot{i}$ ) = 0

total ( $i\dot{x}_i^s$ ) =  $x.5 + totals$