```
add_functionality_wrt_eqmod  THM

⊢  ∀m,a,a',b,b':ℤ.
|  (a = a' mod m) ⇒ (b = b' mod m) ⇒ ((a+b) = (a'+b') mod m)
| by Unfold `eqmod` 0
|
1. m : ℤ
2. a : ℤ
3. a' : ℤ
4. b : ℤ
5. b' : ℤ
6. m | a-a'
7. m | b-b'
⊢  m | a+b-(a'+b')
  by (FwdThru
      Thm* ∀a,b1,b2:ℤ. a | b1 ⇒ a | b2 ⇒ a | b1+b2
      {divisor_of_sum}
      [6;7])
     THEN
     (OnMClauses [-1;0] ArithSimp)
END
```