Uppgifter ur Adams, Z1 ht 2014

Uppgifter med fet stil görs av övningsledare.

Vecka 45

5.1 1. , 5. , 7, 9, 11. , 16. ,**17** , 29. , 33. , 35. , 39. , (40.)

5.2 1. , 5. , 9. , **17. , v46**

5.3 3., 9, 11.

5.4 1, 5, 11, 17, 25, 27, 29, 31

5.5 2, 3, 7, **8, v46**, 11, 15, 17, 21, 27, 33, 39, 45

5.6 1, 3, 5, 9, 13, 15, **17, v46**, 19, 21, 35, 39, 43

Vecka 46

5.7 1, 5, 9, **13 v46**, 14, 19

6.1 3, 5, 6, **7**, 13

6.2 1, 2, 5, 9, 13, 21, 23, 25

6.3 1, 5, 11, 15, 29, 33

6.5 1, 3, 5, 11, 15, 17, 21, 33

Vecka 47

6.2:14, 6.3:13, 6.5:9, 20,30

7.1 1, 3, 7, 13, 19, 21, **11, 15**

7.2 1, 3, 5, **7**, 9, 11

7.3 1, 3, 5, 7, **9**, 11

7.4 3, 5, 7, **11**

7.6 utgår

6.6 ev senare

6.7 ev senare

8.2 1, 3, 5, **9**, 11

8.4 1, 3, **4**, 5, 7, 13, 15, 17

Vecka 48

18.1 1, 2, 3, 5, **7**,**8**, **9**, 11, 12, 15

7.9 1, 5, **7**, 11, 13, 17, 19, 28

Vecka 49

3.7 1, 3, 5, 7, 11, **15**, 19, 21, **27**

4.10 1, 3, 5, **7**, 9, 11

Vecka 50

9.1 1, 3, 5, 17,**21**, **23**

9.2 1, **2**, 7, 9, 11, 13

9.3 1, 3, 5, 7, 11, **21**

9.4 1, 2, **3**, 5, 7

9.6 1, 5, 7, **11**

Uppgifter med DE, där HL ingår i y_h

1. Lös följande DE.

(a)

$$\begin{cases} 2y''(t) - 3y'(t) - 2y(t) = 25\left(e^{2t} + \sin t\right) \\ y(0) = 0, \quad y'(0) = 10 \end{cases}$$

(b)

$$4y''(t) + 4y'(t) + 2y(t) = e^{-t/2}$$

(c)

$$4y''(t) + 4y'(t) + y(t) = 8e^{-t/2}$$

(d)

$$4y''(t) + y(t) = 4\sin\left(\frac{t}{2}\right) + 4\cos\left(\frac{t}{2}\right)$$

Idé på facit: Lös dessa DE med ett matematikprogram, ex.vis Matlab eller Mathematica.