## Practise, Apply, Solve 2.1, page 114

**1.** **(a)** yes **(b)** no
**(c)** yes **(d)** no

**2.** **(a)** $t_{10} = 74$, $S_{10} = 380$
**(b)** $t_{10} = -35$, $S_{10} = 325$
**(c)** $t_{10} = 45$, $S_{10} = 135$
**(d)** $t_{10} = 3\frac{1}{6}$ or $\frac{19}{6}$, $S_{10} = \frac{50}{3}$

**3.** $\frac{200 \times 201}{2}$

**4.** **(a)** 465 **(b)** 1830 **(c)** 500 500 **(d)** 300

**5.** **(a)** 348 **(b)** 690 **(c)** 850 **(d)** 1245

**6.** **(a)** 465 **(b)** 2310 **(c)** $-1647$ **(d)** $\frac{147}{8}$

**7.** 142.8

**8.** **(a)** 1183 **(b)** $-154$ **(c)** 4200 **(d)** $\frac{55}{6}$

**9.** 3925

**10.** 1170

**11.** 410

**12.** –7, $-5$, $-3$

**13.** 875 seats

**14.** 20

**15.** 21

**16.** 303 seats

**17.** 514.5 m

**18.** It is better to use $S_n = \frac{n(t_1 + t_n)}{2}$ when $n$ and the first and last term of the series are known. In both cases the values of $a$ (the first term) and $n$ must be known.

**19.** $12 850

**20.** **(a)** 26 rows **(b)** 13 560

**21.** 5 squares

**23.** –102

**24.** 101