Number of Terms in an Arithmetic Series

Determine the number of terms (n) in each arithmetic series using the given sum.

1) $\sqrt{5} + \sqrt{20} + \sqrt{45} + \ldots$ up to n terms $= 36\sqrt{5}$

2) $294 + 286 + 278 + \ldots$ up to n terms $= 3198$

_____

_____

3) $7.4 + 5.1 + 2.8 + \ldots$ up to n terms $= -63$

4) $61 + 73 + 85 + \ldots$ up to n terms $= 9275$

_____

_____

5) $-12 - 15 - 18 - \ldots$ up to n terms $= -882$

6) $-\dfrac{3}{8} + \dfrac{1}{40} + \dfrac{17}{40} + \ldots$ up to n terms $= 42$

_____

_____

7) $\dfrac{7}{9} + \dfrac{13}{9} + \dfrac{19}{9} + \ldots$ up to n terms $= \dfrac{1159}{9}$

8) $-1.5 - 4.6 - 7.7 - \ldots$ up to n terms $= -1213.8$

_____

_____