Number of Terms in an Arithmetic Series

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

1) $52 + 32 + 12 - \ldots$ up to n terms $= -1568$

2) $0.91 + 0.61 + 0.31 + \ldots$ up to n terms $= -4.4$

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3) $\dfrac{9}{7} + \dfrac{71}{28} + \dfrac{53}{14} + \ldots$ up to n terms $= \dfrac{3685}{14}$

4) $-32 - 41 - 50 - \ldots$ up to n terms $= -1118$

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5) $2\sqrt{6} - \sqrt{6} - 4\sqrt{6} - \ldots$ up to n terms $= -33\sqrt{6}$

6) $156 + 168 + 180 + \ldots$ up to n terms $= 4644$

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7) $81.6 + 83.9 + 86.2 + \ldots$ up to n terms $= 5949$

8) $-\dfrac{4}{9} - \dfrac{55}{63} - \dfrac{82}{63} - \ldots$ up to n terms $= -\dfrac{140}{9}$

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