Find the 66th term in the sequence

$a_5=6, \quad a_8=15, \quad a_{10}=21, \quad a_{66}=\_?\_$

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$a_5=6, \quad a_8=15, \quad a_{10}=21, \quad a_{66}=\underline{?}$

$a_1, \ a_2, \ a_3, \ a_4, \ a_5, \ a_6, \ a_7, \ a_8, \ a_9, \ a_{10} \quad a_{66}$

$\_\_, \_\_, \_\_, \_\_, \underline{6}, \_\_, \_\_, \underline{15}, \_\_, \underline{21} \ldots \quad \underline{?}$

Find the 66th term in the sequence

$a_5=6,\quad a_8=15,\quad a_{10}=21,\quad a_{66}=\underline{?}$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{66}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ \underline{6},\ \_\_,\ \_\_,\ \underline{15},\ \_\_,\ \underline{21}\ \ldots\quad \underline{?}$

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$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{66}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 6,\ \_\_,\ \_\_,\ 15,\ \_\_,\ 21\ \ldots\quad ?$

$6+d+d+d=15$

$6+3d=15$

$3d=9$

$d=3$

$15+d+d=21$

$15+2d=21$

$2d=6$

$d=3$

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$a_5=6,\quad a_8=15,\quad a_{10}=21,\quad a_{66}=\,?$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{66}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 6,\ \_\_,\ \_\_,\ 15,\ \_\_,\ 21\ \ldots\quad ?$

+d +d +d +d +d

$6+d+d+d=15$

$6+3d=15$

$3d=9$

$d=3$

$15+d+d=21$

$15+2d=21$

$2d=6$

$d=3$

$d=3$

$a_n=dn+a_0$

$6=3(5)+a_0$

$6=15+a_0$

$-9=a_0$

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$a_5=6,$ $a_8=15,$ $a_{10}=21,$ $a_{66}=\_?\_$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{66}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 6,\ \_\_,\ \_\_,\ 15,\ \_\_,\ 21\ \ldots\quad ?$

+d +d +d +d +d

$a_n=dn+a_0$

$a_n=3n+-9$

$6+d+d+d=15$

$6+3d=15$

$3d=9$

$d=3$

$15+d+d=21$

$15+2d=21$

$2d=6$

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$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 6,\ \_\_,\ \_\_,\ 15,\ \_\_,\ 21\ \ldots\quad ?$

+d +d +d +d +d

$6+d+d+d=15$

$6+3d=15$

$3d=9$

$d=3$

$15+d+d=21$

$15+2d=21$

$2d=6$

$d=3$

$d=3$

$a_n=dn+a_0$

$6=3(5)+a_0$

$6=15+a_0$

$-9=a_0$

$a_n=dn+a_0$

$a_n=3n+-9$

$a_{66}=3(66)+-9$

$\boxed{a_{66}=189}$

Find the 17th term in the sequence

$a_5=4$, $a_8=32$, $a_{10}=128$, $a_{17}=\_?\_$

Find the 17th term in the sequence

$a_5=4$, $a_8=32$, $a_{10}=128$, $a_{17}=\ ?$

a_1, a_2, a_3, a_4, a_5, a_6, a_7, a_8, a_9, a_{10} a_{17}

__, __, __, __, 4, __, __, 32, __, 128 … ?

+d +d +d +d +d

Find the 17th term in the sequence

$a_5=4,\quad a_8=32,\quad a_{10}=128,\quad a_{17}=\underline{?}$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{17}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 4,\ \_\_,\ \_\_,\ 32,\ \_\_,\ 128\ \ldots\ ?$

$4+d+d+d=32$ $\quad$ $32+d+d=128$

$4+3d=32$ $\quad$ $32+2d=128$

$3d=28$ $\quad$ $2d=96$

$d=9\frac{1}{3}$ $\quad$ $d=48$

NOT ARITHMETIC

Find the 17th term in the sequence

$a_5=4,\quad a_8=32,\quad a_{10}=128,\quad a_{17}=\ ?$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{17}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 4,\ \_\_,\ \_\_,\ 32,\ \_\_,\ 128\ \ldots\ ?$

Find the 17th term in the sequence

$a_5=4,\quad a_8=32,\quad a_{10}=128,\quad a_{17}=\underline{?}$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{17}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ \underline{4},\ \_\_,\ \_\_,\ \underline{32},\ \_\_,\ \underline{128}\ \ldots\ \underline{?}$

$4\cdot r\cdot r\cdot r=32$

$4\cdot r^3=32$

$r^3=8$

$r=2$

$32\cdot r\cdot r=128$

$32\cdot r^2=128$

$r^2=4$

$r=2$

Find the 17th term in the sequence

$a_5=4,$ $a_8=32,$ $a_{10}=128,$ $a_{17}=\_?\_$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{17}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 4,\ \_\_,\ \_\_,\ 32,\ \_\_,\ 128\ \ldots\ ?$

$\cdot r \quad \cdot r \quad \cdot r \quad \cdot r \quad \cdot r$

$4\cdot r\cdot r\cdot r=32$ $\quad$ $32\cdot r\cdot r=128$

$4\cdot r^3=32$ $\quad$ $32\cdot r^2=128$

$r^3=8$ $\quad$ $r^2=4$

$r=2$ $\quad$ $r=2$

$r=2$

$a_n=a_0\cdot r^n$

$4=a_0\cdot 2^5$

$4=a_0\cdot 32$

$0.125=a_0$

Find the 17th term in the sequence

$a_5=4,\quad a_8=32,\quad a_{10}=128,\quad a_{17}=\_?\_$

$a_1,\ a_2,\ a_3,\ a_4,\ a_5,\ a_6,\ a_7,\ a_8,\ a_9,\ a_{10}\quad a_{17}$

$\_\_,\ \_\_,\ \_\_,\ \_\_,\ 4,\ \_\_,\ \_\_,\ 32,\ \_\_,\ 128\ \ldots\ ?$

$\cdot r \quad \cdot r \quad \cdot r \quad \cdot r \quad \cdot r$

$a_n=a_0\cdot r^n$

$a_n=0.125\cdot 2^n$

$a_{17}=0.125\cdot 2^{17}$

$a_{17}=16384$

$4\cdot r\cdot r\cdot r=32$

$4\cdot r^3=32$

$r^3=8$

$r=2$

$32\cdot r\cdot r=128$

$32\cdot r^2=128$

$r^2=4$

$r=2$

$r=2$

$a_n=a_0\cdot r^n$

$4=a_0\cdot 2^5$

$4=a_0\cdot 32$

$0.125=a_0$