

For each problem:

- Show how to solve the rule for the sequence
- Write that rule clearly in proper form
- Apply that rule to fill in the missing terms
- Extend the sequence to solve for the specific term requested

1. $-\frac{11}{5}, -\frac{7}{5}, -\frac{3}{5}, \frac{1}{5}, 1, \frac{14}{5} = \frac{9}{5}$ Extend to the 46th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & \nearrow & & \\ & & +\frac{4}{5} & +\frac{4}{5} & +\frac{4}{5} & & \\ & & \searrow & \searrow & \searrow & & \end{array}$

2. $-14, 12, 38, 64, 90, 116$ Extend to the 25th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & & & \\ & & +26 & +26 & & & \\ & & \searrow & \searrow & & & \end{array}$

3. $\frac{61}{8}, \frac{27}{4}, \frac{47}{8}, 5, \frac{32}{8}, \frac{26}{8} = \frac{13}{4}$ Extend to the 65th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & & & \\ & & -\frac{7}{8} & -\frac{7}{8} & & & \\ & & \searrow & \searrow & & & \end{array}$

4. $\frac{87}{2}, \frac{76}{2} = 38, \frac{65}{2}, \frac{54}{2} = 27, \frac{43}{2}, 16$ Extend to the 15th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & \nearrow & \nearrow & \\ & & -11 & -11 & -11 & -11 & \\ & & \searrow & \searrow & \searrow & \searrow & \end{array}$

5. $32, 25, 18, 11, 4, -3$ Extend to the 20th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & \nearrow & \nearrow & \\ & & -7 & -7 & -7 & -7 & \\ & & \searrow & \searrow & \searrow & \searrow & \end{array}$

6. $\frac{11}{4}, \frac{20}{4} = 5, \frac{29}{4}, \frac{38}{4} = \frac{19}{2}, \frac{47}{4}, \frac{56}{4} = 14$ Extend to the 33rd term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & \nearrow & \nearrow & \\ & & +\frac{9}{4} & +\frac{9}{4} & +\frac{9}{4} & +\frac{9}{4} & \\ & & \searrow & \searrow & \searrow & \searrow & \end{array}$

7. $\frac{64}{6} = \frac{32}{3}, \frac{55}{6} = \frac{59}{6}, 9, \frac{49}{6}, \frac{44}{6} = \frac{22}{3}, \frac{13}{2}$ Extend to the 25th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & \nearrow & & \\ & & -\frac{5}{6} & -\frac{5}{6} & -\frac{5}{6} & & \\ & & \searrow & \searrow & \searrow & & \end{array}$

8. $\frac{5}{3}, \frac{10}{3}, \frac{15}{3} = 5, \frac{20}{3}, \frac{25}{3}, 10$ Extend to the 40th term

$\begin{array}{ccccccc} & & \nearrow & \nearrow & \nearrow & \nearrow & \\ & & +\frac{5}{3} & +\frac{5}{3} & +\frac{5}{3} & +\frac{5}{3} & \\ & & \searrow & \searrow & \searrow & \searrow & \end{array}$

***Fill in the missing terms on this paper. Everything else should be written clearly on your FOLDER PAPER.



Sequences Test

1) Rule: $-\frac{11}{5} + (n-1)\frac{4}{5}$ ✓

Extends: $\frac{191}{5}$ ✗

8) Rule: $\frac{5}{3} + (n-1)\frac{5}{3}$ ✓

Extends: $\frac{200}{3}$ ✓

2) Rule: $-14 + (n-1)26$ ✓

Extends: 610 ✓

3) Rule: $\frac{61}{8} - (n-1)\frac{7}{8}$ ✓

Extends: $\frac{387}{8}$ ← neg

4) Rule: $\frac{87}{2} - (n-1)\frac{11}{2}$ ✓

Extends: $-\frac{67}{2}$ ✓

9) Rule: $32 - (n-1)7$ ✓

Extends: -101 ✓

6) Rule: $\frac{11}{4} + (n-1)\frac{9}{4}$ ✓

Extends: $\frac{299}{4}$ ✓

7) Rule: $\frac{32}{3} - (n-1)\frac{5}{6}$ ✓

Extends: $-\frac{28}{3}$ ✓