

Grade 8 Mathematics Worksheet

Number pattern and fractions

Questions:

1. Mr Peters has asked his learners to form a sequence using the following rules:

- Use the number $\frac{5}{3}$ as a first term
- To find the next terms, halve the previous term and subtract 2

If the second term in this pattern is $-\frac{7}{6}$, the 5th term will be....

- (A) $-\frac{79}{24}$
(B) $-\frac{10}{3}$
(C) $-\frac{175}{48}$
(D) $\frac{10}{3}$

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Solution

1. $T_1 = \frac{5}{3}$

$$T_2 = -\frac{7}{6}$$

$$T_3 = -\frac{31}{12}$$

$$T_4 = -\frac{79}{24}$$

$$T_5 = -\frac{175}{48}$$

The correct option is C

The relationship is given as a recursive relationship, and learners need to work with these. They often see number pattern as a recursive relationship before they see general number.