

Extending Patterns

To extend a pattern, find the difference between each set of terms.
Then write the rule.

1, 4, 6, 9, 11, ... Rule: Start at 1. Add 3, then add 2.

Use the rule to extend the pattern: 1, 4, 6, 9, 11, 14, 16, 19, ...

1. Find the difference between each set of terms.

Write the rule. Then extend the pattern.

a) 32, $\overset{+3}{\rule{0.5cm}{0.4pt}}$ 35, $\rule{0.5cm}{0.4pt}$ 39, $\rule{0.5cm}{0.4pt}$ 42, $\rule{0.5cm}{0.4pt}$ 46, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, ...

Rule: $\rule{4cm}{0.4pt}$

b) 74, $\rule{0.5cm}{0.4pt}$ 79, $\rule{0.5cm}{0.4pt}$ 81, $\rule{0.5cm}{0.4pt}$ 86, $\rule{0.5cm}{0.4pt}$ 88, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, ...

Rule: $\rule{4cm}{0.4pt}$

c) 40, $\rule{0.5cm}{0.4pt}$ 38, $\rule{0.5cm}{0.4pt}$ 35, $\rule{0.5cm}{0.4pt}$ 33, $\rule{0.5cm}{0.4pt}$ 30, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, ...

Rule: $\rule{4cm}{0.4pt}$

d) 65, $\rule{0.5cm}{0.4pt}$ 55, $\rule{0.5cm}{0.4pt}$ 50, $\rule{0.5cm}{0.4pt}$ 40, $\rule{0.5cm}{0.4pt}$ 35, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, $\rule{0.5cm}{0.4pt}$, ...

Rule: $\rule{4cm}{0.4pt}$