

GRADE 4

2007 ALGEBRA BENCHMARK EXAMPLES

4.2.1.1

1. The rule is "multiply by 3 and add 4." Given the input of 2, the output is $2 \times 3 + 4 = 10$.

Find the output for each of these input numbers: $3 \rightarrow$ ____, $5 \rightarrow$ ____, $10 \rightarrow$ ____

2. Given the pattern **2**(2 by 1 dot array), **6** (3 by 2 dot array), **12** (4 by 3 dot array), ____
Create an input-output rule to find the next term. _____.

What is the tenth term? _____

3. What is the rule for this pattern? 2, 4, 6, 8, _____.

4. What is the rule for this pattern? 3, 5, 7, _____.

4.2.2.1

1. The number sentence $l \cdot w = 60$ represents an area of 60 where l = length and w = width.

Give three different length and width combinations to get an area of 60.

____ by ____, ____ by ____, and ____ by ____.

4.2.2.2

1. Find the values of the unknowns:

(a) $12 \cdot N = 48$ (b) $N/8 = 4$ (c) $N + 8 = 12$ (d) $18 = 36 \cdot N$ (e) $N - 9 = 9$

2. Write an algebraic equation for the following situation: \$84 is shared evenly among a group (G) of kids. The amount each kid receives is A. _____.

3. Write an algebraic sentence given, four more than six times a number: _____

4. $8 + 4 = n + 5$ $n =$ ____