

Master Maths 10 Worksheet 12

Algebraic Symbols

12

Name: _____

1. Write the following statements as algebraic expressions.

- | | |
|--------------------------------------|--|
| (a) The sum of A and B | |
| (b) The product of m and n | |
| (c) 6 times the sum of p and q | |
| (d) The product of x and $(y - z)$ | |

2. State the coefficient of the following terms.

- | | | |
|------------|------------------------|----------|
| (a) $5x^2$ | (b) $-\frac{2}{3}bc^4$ | (c) $-A$ |
| | | |

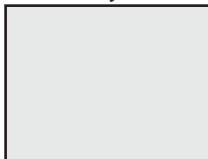

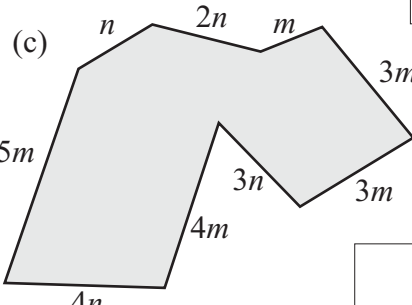
3. Simplify the following expressions.

- | | | |
|---|--------------------------|----------------|
| (a) $7m - 2m$ | (b) $6x + 5x$ | (c) $5n - n$ |
| | | |
| (d) $3y - 7y$ | (e) $-4p - 9p$ | (f) $-5c + 8c$ |
| | | |
| (g) $7a + 5a - 4a - 2a$ | (h) $5d - 8d - d + 6d$ | |
| | | |
| (i) $5m + 2n - 7m + 2n$ | (j) $-4x + 7y - 5y + 8x$ | |
| | | |
| (k) $6a + 4c - 8b + 7c - a + b + 9a + 3b - 11c$ | | |
| | | |
| (l) $2x^2y + 4xy^2 - 6xy + 3xy^2 - 5x^2y - 3xy$ | | |
| | | |
| (m) $5p^2 + 6p - 4q + 3q^2 + 3p - 7q + 4p^2 - 8q^2$ | | |
| | | |


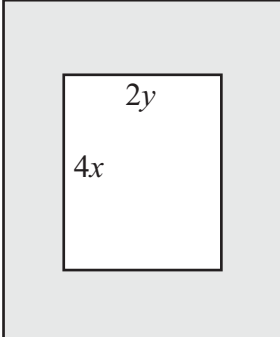
4. Simplify the following expressions.

- | | |
|---------------------------------|--|
| (a) $6x \times 4y$ | (b) $5q \times r \times 2p \times 2p$ |
| | |
| (c) $3ab \times 2bc \times 4ac$ | (d) $4z \times 2x \times 3z \times y \times x$ |
| | |

5. Find the **perimeter** of the following shapes.

- | | |
|---|---|
| <p>(a)</p>  <p style="text-align: center;">$4y$</p> <p style="text-align: left;">$3x$</p> <p style="border: 1px solid black; width: 100%; height: 30px; margin-top: 10px;"></p> | <p>(b)</p>  <p style="text-align: center;">$5a$</p> <p style="text-align: left;">$6a$</p> <p style="border: 1px solid black; width: 100%; height: 30px; margin-top: 10px;"></p> |
| <p>(c)</p>  <p style="border: 1px solid black; width: 100%; height: 30px; margin-top: 10px;"></p> | |

6. Find the **area** of the shaded regions below.

- | | |
|--|---|
| <p>(a)</p>  <p style="text-align: center;">$3a$</p> <p style="text-align: right;">$2b$</p> <p style="border: 1px solid black; width: 100%; height: 30px; margin-top: 10px;"></p> | <p>(b)</p>  <p style="text-align: center;">$2n$</p> <p style="text-align: left;">$2y$</p> <p style="text-align: left;">$4x$</p> <p style="text-align: left;">$3m$</p> <p style="border: 1px solid black; width: 100%; height: 30px; margin-top: 10px;"></p> |
|--|---|