

- List all the factors of 72.
- Perform the divisions. Show both the quotient and the remainder. For example, $19 \div 7 = 2 \text{ R } 5$.

(a) $38 \div 8 =$

(b) $75 \div 11 =$

- Perform the following operations. Show all steps.

(a) $\frac{5 + (5^2 - 3^2) + (5^3 - 3^3) - 3}{5^2 + (5 - 3)^2} =$

(b) $2^6 - 2(3^2 + 2^3) + 3(2(15 - 2^3) - 2^2) =$

(c) $4(3(2(2^2 - 1) + 1) - 1) + 5 =$

(d) $\frac{2(3^3 - 4 \cdot 5) - 2^2}{4^2 - (3^2 + 2)} =$

- Let $a = 4$, $b = 3$, and $c = 1$. Evaluate each of the following expressions.

(a) $a + 2b - 3c =$

(b) $\frac{2a - b}{a - (b + 1)} =$

(c) $a^2 + b^2 =$

(d) $(a + b)^2 =$

(e) $a^2 + b^2 + 2ab =$

(f) $a^3 - 7b^2 + 5c^4 =$

(g) $(a - 1)^b =$

- Simplify each of the following expressions.

(a) $(2a + 3b) + (a - 7b) =$

(b) $(2a + 3b) - (a - 7b) =$

(c) $(2a + 3b)(a - 7b) =$

- The sides of a rectangle are 14 in and 25 in long.

(a) Find the perimeter of the rectangle. Include units in your answer.

(b) Find the area of the rectangle. Include units in your answer.