Order of Operations

Order of operations is a set of rules used to ensure you get the correct answer every time you solve a math problem. If there is more than one operation of the same family (multiplication/division) or (addition/subtraction), solve in order from left to right.

Please — P — Parenthesis (grouping symbols)

$$\sqrt{[3-(-1)]^2 + (-4)(-3) \div 3}$$
$$= \sqrt{[4]^2 + (-4)(-3) \div 3}$$

note: [ ], | |, ( ) are grouping symbols

Excuse — E — Exponents (powers)

$$\sqrt{[4]^2 + (-4)(-3) \div 3}$$
$$= \sqrt{16 + (-4)(-3) \div 3}$$

My — M — Multiplication

$$\sqrt{16 + (-4)(-3) \div 3}$$
$$= \sqrt{16 + 12 \div 3}$$

Dear — D — Division

$$\sqrt{16 + 12 \div 3}$$
$$= \sqrt{16 + 4}$$

Aunt — A — Addition

$$\sqrt{16 + 4} =$$
$$\sqrt{20} = 2\sqrt{5}$$

simplification:
$$\sqrt{4 \cdot 5}$$
$$= (4 \cdot 5)^{1/2}$$
$$= 4^{1/2} \cdot 5^{1/2}$$
$$= \sqrt{4} \cdot \sqrt{5}$$
$$= 2\sqrt{5}$$

Sally — S — Subtraction

Final Answer:
$$2\sqrt{5}$$

There is no subtraction step for this problem