

SUBSTITUTION

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Worked example

If $a = 5, b = 6$, evaluate:

$$3a + 7$$

$$2b - 9$$

$$2a + 3b + 5$$

$$ab - 11$$

Your turn

If $a = 3, b = 4$, evaluate:

$$4a + 5$$

$$17$$

$$5b - 6$$

$$14$$

$$7a + 5b + 11$$

$$52$$

$$ab - 7$$

$$5$$

Worked example

If $a = 5, b = 6, c = 7$, evaluate:

$$a + b \qquad ab$$

$$a - b \qquad abc$$

$$a + b^2 \qquad a^3 - c$$

$$2a + 3b + 4c$$

Your turn

If $a = 2, b = 3, c = 4$, evaluate:

$$a + b \qquad ab$$

5

6

$$a - b \qquad abc$$

-1

24

$$a + b^2 \qquad a^3 - c$$

11

4

$$5a + 6b + 7c$$

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Worked example

If $a = 5, b = 6, c = 7$, evaluate:

$$2a + 3b + 4c$$

Your turn

If $a = 2, b = 3, c = 4$, evaluate:

$$7a + 6b + 5c$$

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Worked example

If $a = 5, b = -6, c = -7$,
evaluate:

$$a + b \qquad ab$$

$$a - b \qquad abc$$

$$a + b^2 \qquad a^3 - c$$

Your turn

If $a = 2, b = -3, c = -4$,
evaluate:

$$a + b \qquad ab$$

$$-1 \qquad -6$$

$$a - b \qquad abc$$

$$5 \qquad 24$$

$$a + b^2 \qquad a^3 - c$$

$$11 \qquad 12$$

Worked example

If $a = 5, b = -6, c = -7$,
evaluate:

$$2a + 3b + 4c$$

Your turn

If $a = 2, b = -3, c = -4$,
evaluate:

$$7a + 6b + 5c$$

$$-24$$

Worked example

If $a = 5, b = 6$, evaluate:

$$ab$$

$$a^2b$$

$$ab^2$$

$$(ab)^2$$

Your turn

If $a = 3, b = 4$, evaluate:

$$ab$$

$$12$$

$$a^2b$$

$$36$$

$$ab^2$$

$$48$$

$$(ab)^2$$

$$144$$

Worked example

If $a = -5$, $b = 6$, evaluate:

$$ab$$

$$a^2b$$

$$ab^2$$

$$(ab)^2$$

Your turn

If $a = -3$, $b = 4$, evaluate:

$$ab$$

$$-12$$

$$a^2b$$

$$36$$

$$ab^2$$

$$-48$$

$$(ab)^2$$

$$144$$

Worked example

If $a = 4$, evaluate:

$$a^2$$

$$5a^2$$

$$(5a)^2$$

Your turn

If $a = 3$, evaluate:

$$a^2$$

$$9$$

$$2a^2$$

$$18$$

$$(2a)^2$$

$$36$$

Worked example

If $a = -4$, evaluate:

$$a^2$$

$$5a^2$$

$$(5a)^2$$

Your turn

If $a = -3$, evaluate:

$$a^2$$

$$9$$

$$2a^2$$

$$18$$

$$(2a)^2$$

$$36$$

Worked example

If $a = -4$, evaluate:

$$a^2$$

$$-5a^2$$

$$(-5a)^2$$

Your turn

If $a = -3$, evaluate:

$$a^2$$

$$9$$

$$-2a^2$$

$$-18$$

$$(-2a)^2$$

$$36$$

Worked example

If $a = 7, b = -5, c = -3$,
evaluate:

$$2c^2 - 4b + 6a + 8$$

Your turn

If $a = -2, b = 4, c = -6$,
evaluate:

$$3a^2 - 5c + 7b - 9$$

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Worked example

If $a = 5, b = 6, c = 7$, evaluate:

$$2a^3 + 3b^2 - 6c$$

Your turn

If $a = 2, b = 3, c = 4$, evaluate:

$$3a^3 + 2b^2 - 5c$$

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Worked example

If $a = 5, b = -6, c = -7$,
evaluate:

$$2a^3 - 3b^2 - 6c$$

Your turn

If $a = 2, b = -3, c = -4$,
evaluate:

$$3a^3 - 2b^2 - 5c$$

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