1) Identify the algebraic expressions among the following:
   a) $2x + y$
   b) 3
   c) $x = 2$
   d) $2x - 5$

2) Convert the following phrases into expressions:
   a) One-fourth of the sum of x and 2 times y
   b) The number m multiplied by itself.
   c) Product of the numbers x and y is subtracted from 10.

3) Simplify the following algebraic expressions by combining like terms.
   a) $3x + 5x - 7x$
   b) $\dfrac{1}{2}x - 7 - 3x$

4) Mia's piggy bank has only dimes and quarters. Write an expression for the amount of money (in dollars) in her piggy bank if x is the number of dimes and y is the number of quarters.

5) Simplify the following expressions:

a) $3.5x - 2 + 5.2x - 3$

b) $\dfrac{1}{3}x - 4 + \dfrac{1}{6}x + \dfrac{1}{8} - x^3$

6) Find the sum:

a) $(3x + 8) + (-2x - 7)$

b) $\left(\dfrac{3}{5}x - 7\right) + (2x - 5) + \left(-\dfrac{2}{5}x - 7\right)$

7) Find the sum:

a) $(2x - 6) + (4x - 12)$

b) $\left(-\dfrac{5}{2}x + 4\right) + \left(\dfrac{1}{5}x + 17\right)$

8) Find the difference:

a) $(-5t + 3) - (7 - 2t)$
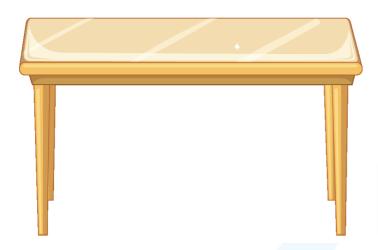
b) $\left(-\dfrac{1}{7}j + 15\right) - \left(\dfrac{3}{7} - 2j\right)$

9) Joy is $(4x + 5)$ years old. Her brother Michael is $(3x - 2)$ years younger than her sister. Then write an expression that represents Michael's age.

10) The width of a rectangular table top is 4 units less than thrice its length. Then what is its perimeter as an algebraic expression? Assume its length to be x.

11) What should be added to $3x^2 + xy + y^2$ to get $3x^2 - 3y^2$?

12) A square shaped door mat has a perimeter of 8x – 12 units. Find an expression for the length of the mat.

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1)	Options a), b), and d)
2)	a) $\dfrac{1}{4}(x + 2y)$ b) m^2 c) $10 - xy$
3)	a) x b) $\dfrac{-5}{2}x - 7$
4)	0.10x + 0.25y
5)	a) 8.7x – 5 b) $-x^3 + \dfrac{1}{2}x - \dfrac{31}{8}$
6)	a) x + 1 b) $\dfrac{11}{5}x - 19$
7)	a) 6x – 18 b) $-\dfrac{23x}{10} + 21$
8)	a) -3t – 4 b) $\dfrac{13}{7}j + \dfrac{102}{7}$
9)	(x + 7) years
10)	(8x – 8) units

11)	$-4y^2 - xy$
12)	(2x – 3) units

FUN FACT

1. An algebraic expression does not contain an "=" symbol.

2. To evaluate an algebraic expression at given values of variables, simply substitute them in the expression and simplify it.

3. To add/ subtract two or more algebraic expressions, simply combine the like terms.