**Exercise - Simplifying Algebraic Expressions**

**1**

Which of the following expressions is equivalent to $\frac{2}{3}(a^2-a-3)+\frac{1}{3}(a^2+2a+6)$ ?

A) $a^2$

B) $a^2+a$

C) $a^2-a$

D) $a^2-1$

**2**

Which of the following expressions is equivalent to $5.4(x-2y)-2.7(x-3y)$ ?

A) $2.7(x+y)$

B) $2.7(x-y)$

C) $2.7x+3.6y$

D) $2.7x-3.6y$

**3**

Which of the following expressions is equivalent to $\frac{1}{2}(2a+3b+4c)-\frac{3}{2}(b+2c)$ ?

A) $a-3c$

B) $a+5c$

C) $a+c$

D) $a-c$

**4**

Which of the following expressions is equivalent to $a(b-c)-b(a+c)-c(a-b)$ ?

A) $bc$

B) $2ac$

C) $-2bc$

D) $-2ac$

**5**

Which of the following expressions is NOT equivalent to $3[6a-3(1-a)-5(a+1)]$ ?

A) $12a-24$

B) $24(a-\frac{1}{2})$

C) $12(a-2)$

D) $24(\frac{1}{2}a-1)$

**6**

Which of the following expressions is NOT equivalent to $p-\frac{2}{3}(2p-3q)-\frac{1}{3}(p+4q)$ ?

A) $-\frac{2}{3}(p-q)$

B) $-\frac{2}{3}p+\frac{2}{3}q$

C) $-\frac{2}{3}(p+q)$

D) $-\frac{1}{3}(2p-2q)$