Surprise Test

$a = 12x$, $b = -8y$ $c = bz$

$d = 2a$

Find

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

(2) $a \times b \times c =$

(3) $\frac{a}{b} = \frac{c}{d}$

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

(5) $\frac{a+b}{4} = \frac{c+d}{2}$

(6) $-a - b - c$

(7) $c^2 + d^2 =$

Surprise Test

$a = 12x$, $b = -8y$ $c = 6z$

$d = 2a$

Find

1) $\frac{a+b+c}{2} = \frac{12x-8y+6z}{2} = 6x-4y+3z$

$a \times b \times c = 12x \times (-8y) \times (6z) = -576xyz$

$\frac{a}{b} = \frac{c}{d}$ $\frac{12x}{-8y} = \frac{6z}{2a}$ $\frac{-3x}{2y} = \frac{3z}{a}$

$-3ax = 6yz$

$-ax = 2yz$

$a^2+b^2+c^2 = (12x)^2+(-8y)^2+(6z)^2 = 144x^2+64y^2+36z^2$

$\frac{a+b}{4} = \frac{c+d}{2}$ $\frac{12x-8y}{4} = \frac{6z+2a}{2}$

$3x-2y = 3z+a$

$-a-b-c$ $-12x-(-8y)-(6z) = -12x+8y-6z$

$c^2+d^2 = (6z)^2+(2a)^2 = 36z^2+4a^2$