1.14.16

Complete the following SAT problems without a calculator.

1. What is the sum of all values of m that satisfy $\frac{2m^2}{2} - \frac{16m}{2} + \frac{8}{2} = 0$? GCF = 2

A) -8

B) $-4\sqrt{3}$

C) $4\sqrt{3}$

D) 8

$m^2 - 8m + 4 = 0$

$a = 1 \quad b = -8 \quad c = 4$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{8 \pm \sqrt{(-8)^2 - 4 \cdot 1 \cdot 4}}{2(1)}$$

$$x = \frac{8 \pm \sqrt{64 - 16}}{2}$$

$$x = \frac{8 \pm \sqrt{48}}{2}$$

$\sqrt{16} \cdot \sqrt{3}$

$4\sqrt{3}$

$$x = \frac{8 \pm 4\sqrt{3}}{2}$$

$$x = 4 \pm 2\sqrt{3}$$

$4 + 2\sqrt{3} + 4 - 2\sqrt{3} = 8$

2. If $t > 0$ and $t^2 - 4 = 0$, what is the value of t ?

$+4 \quad +4$

$t^2 = 4$

$t = \pm 2$

$t = 2$