Answer on Question #53314 – Math – Algebra

Question

Which expression is equivalent to 2/3(x+2)-1/3(x-2)?

Solution

$$\frac{2}{3}\cdot(x+2)-\frac{1}{3}\cdot(x-2)=|open\ brackets|=\frac{2}{3}\cdot x+\frac{2}{3}\cdot 2-\frac{1}{3}\cdot x+\left(-\frac{1}{3}\right)\cdot(-2)=\frac{2}{3}x+\frac{4}{3}-\frac{1}{3}x+\frac{2}{3}$$
$$=|collect\ similar\ terms|=\left(\frac{2}{3}-\frac{1}{3}\right)x+\left(\frac{4}{3}+\frac{2}{3}\right)=|simplify|=\frac{1}{3}x+\frac{6}{3}=\frac{1}{3}x+2$$

Answer: $\frac{1}{3}x+2$