

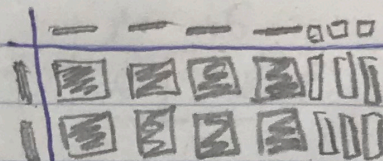
7.3 Dividing Polynomials by Monomials

Ex 1: Algebra Tiles



$$\frac{6x^2 - 8x}{2x} = 3x - 4$$

b) $(8x^2 - 6x) \div (2x)$



$$4x - 3$$

SYK: a) $\frac{3x^2 + 6x}{3x}$

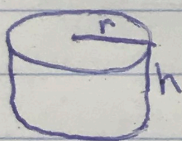
b) $\frac{8x^2 - 2x}{2x}$

Ex 2: Algebraically.

a) What is the simplified ratio of the surface area to radius?

b) If the height is the same as the radius, what is the new simplified ratio?

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$$\begin{aligned} \text{a) } \frac{SA}{r} &\rightarrow \frac{2\pi r^2 + 2\pi r h}{r} \rightarrow \frac{2\pi r^2}{r} + \frac{2\pi r h}{r} \\ &= \frac{2\pi r^{\cancel{2}}}{\cancel{r}} + \frac{2\pi \cancel{r} h}{\cancel{r}} \Rightarrow 2\pi r + 2\pi h \end{aligned}$$

b) $r = h$

$$\begin{aligned} &2\pi r + 2\pi h \\ &= 2\pi r + 2\pi r \\ &= 4\pi r \end{aligned}$$

SYK: a) $\frac{15x^2 - 12x}{3x}$

b) $\frac{-2t^2 + 4t}{2t}$

