Solve in this handout

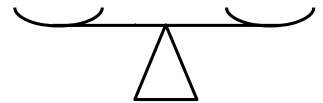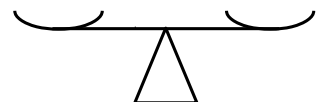**1.** A bag may fit up to 12 cans of coke. How many bags are needed to carry 80 cans?

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_____

2. A fake coin weighs less than real ones. Using two cup balances find …

a). … the fake coin out of 3 in ***only 1*** weighing.

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b). … the fake coin out of 9 in ***only 2*** weighing.

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3. Calculate:

$2 \times (-6) =$ $\frac{1}{3} \times 6 =$

$\frac{2}{3} \times 6 =$ $2 : (-6) =$

$\frac{1}{3} : (-6) =$ $\frac{2}{3} : (-6) =$

$2 \times \frac{1}{6} =$ $\frac{1}{3} \times \frac{1}{6} =$

$\frac{2}{3} \times \frac{1}{6} =$ $2 : \left(-\frac{1}{6}\right) =$
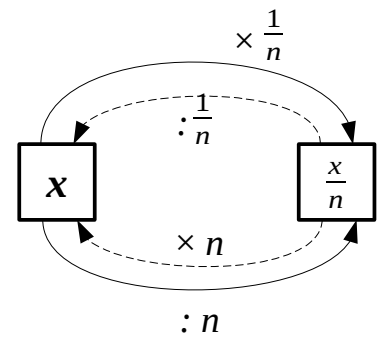
$\frac{1}{3} : \left(-\frac{1}{6}\right) =$ $\frac{2}{3} \times \left(-\frac{1}{6}\right) =$

Solve in your notebook

4. Show that …

… a). $(2 - 4x) \times \frac{1}{2} + \left(\frac{1}{2}x + \frac{1}{2}\right) : \frac{1}{4} = 3$

… b). $\left(\frac{1}{4} - w\right) \cdot 2 + \left(w - \frac{1}{6}\right) \cdot 3 = w$

5. Make Cartesian coordinates using ½ cm (1 cell) as a unit. Mark point $D(3, 2)$. Plot w = Circ(D, 5) (r = 5 units = 2½ cm). Shade the cells that are completely inside the circle.

Put upper and lower limits on the area of the circle: _____ $< S <$ _____

6*. Solve the equations: (Answers: a). $\{-\frac{2}{3}, 2\}$ b). $\{-10, 30\}$ c. $\varnothing$)

a). $|3x - 2| = 4$ b). $\left|\frac{1}{5}x - 2\right| = 4$ c). $\left|\frac{1}{5}x - 2\right| = -4$

7. Solve equations:

a). $8 - 12x = 4$ b). $8 - 12 : x = 4$ c). $12 : (8 - x) = 4$

Answers: (a). $x = \frac{1}{3}$ b). $x = 3$ c). $x = 5$)