Ma 9 – Flashback #6

1. If a bank charges $4 per month for their savings account with the first transaction free and then $1.25 for every additional transaction, how much will a person be charged if they have 12 transactions in a month?

2. Match each equation to its pattern:

Y = 2x – 1		11, 15, 19, ...
Y = -4x + 3		-5, -9, -13, ...
Y = 2x + 5		1, 3, 5, ...
Y = 4x + 7		-11, -13, -15, ..
Y = -4x – 1		7, 9, 11, ...
Y = -2x - 9		-1, -5, -9, ...

3. Solve using algebra tiles: 2x + 3 = x – 7

4. Without doing any calculations, answer the following (explain your thinking):

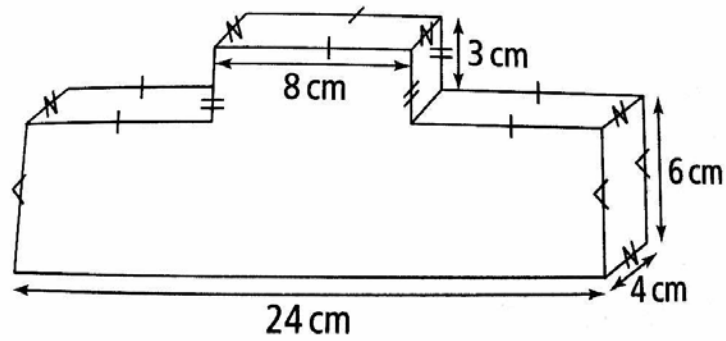| A	B	positive/negative	bigger or smaller than A	how do you know?
3 + -20				
-4 x -26				
5 - -12				
510 ÷ -25				
$-^1/_2$ x $^3/_4$				
$4^2/_3$ + 2				
$-^5/_6$ – $^2/_3$				

5. Simplify: $6x(2x – 3) + (7x – 10) – 5x^2 + 8x +10$

    a) what are the coefficients?   b) what type of polynomial is it?

6. Without using a calculator, solve the following: -2.7 = 3 (x + 3.2)

7. A poster displaying a pair of shoes uses a scale of 1:4. The length of a shoe on the poster is 6.5 cm. What is the actual length of the shoe?

8. This tiered stand is covered with fabric to display jewellery. What is the surface area of fabric on the exposed faces (all except the base)?

9. Simplify: $\dfrac{12(x^3)^5}{3x^7 \cdot x^6}$

10. Which of the following numbers are considered a perfect square? If it is, give its square root (no calculators!)

16   10   1/25   0.49   -100