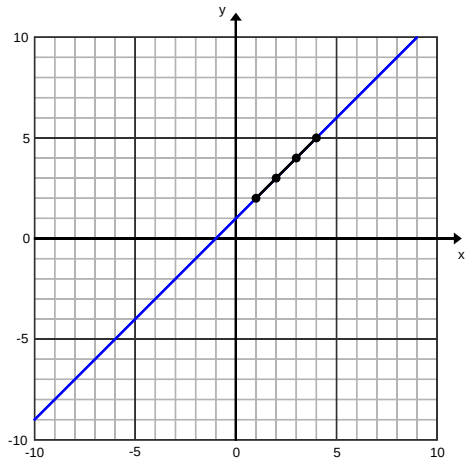
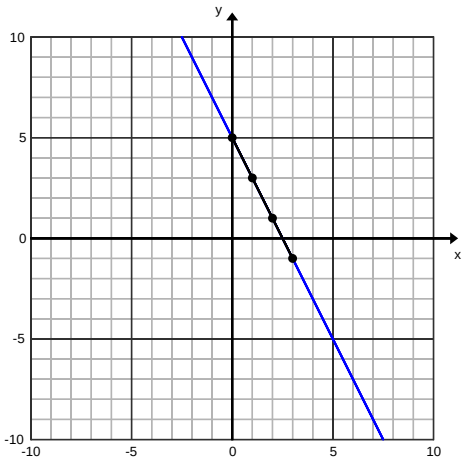
Ma 9 – Flashback #4

1. Determine the linear equation that models each graph. (Hint – look at the "nice" points)

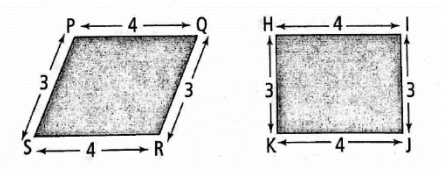




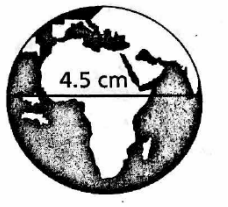
2. **Estimate** the following (no calculators): -2.56 + 6.7 ÷ 1.3

3. Evaluate: $\left(\frac{2}{3}\right)^2 + \left(\frac{-2}{-3}\right)^3 + \frac{1}{3} \div \frac{2}{5}$

4. Are these polygons similar? Explain your thinking.



5. Determine the diameter of the Earth. The scale for the image is 1 cm : 2834.7 km.



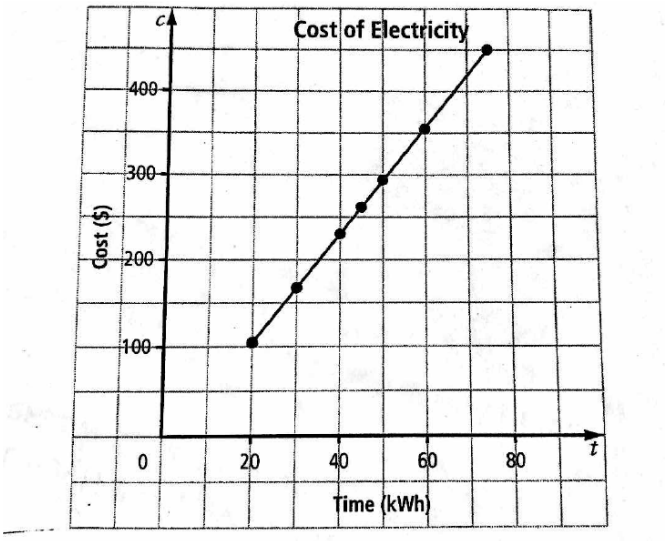
6. Replace each box with >, < or = to make each statement true. Explain how you determined the correct symbol.

a) $\frac{-6}{4} \square \frac{3}{-2}$ b) $-3\frac{5}{8} \square -3\frac{7}{9}$

7. Solve the inequality. Show the solution on a numberline. Verify the solution.

$5(2x + 4) > 2(7x + 4)$

8. The graph represents the relationship between the cost of electricity and the amount used in a house. The electricity is measured in kilowatt hours (kwh).



a) Is it reasonable to interpolate or extrapolate values on this graph?
b) Approximately how much does it cost to use 45 kWh of electricity?
c) Approximately how many kilowatt hours of electricity could you use for $450?

9. Simplify: $(7x^2 - x + 2) - (x^2 + 5x - 3) + 4(x^2 - 1)$

a) what are the coefficents in the simplified answer
b) What is the constant?
c) What type of polynomial is it?

10. Evaluate: -4^2