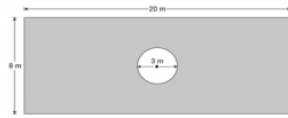


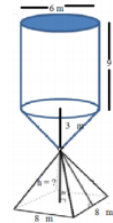
**Strands**  
Sample questions in the grade 9 curriculum  
**Measurement and Geometry**

Terry is painting the shaded area of the rectangle wall shown below.



The average cost of paint is  $\$0.40/m^3$ .  
Determine the total cost of the paint needed to cover the shaded area of the wall.

Water is being poured from one container to another as shown. The water flows from the top container to the square based pyramid below. The water from the top container completely fills the bottom pyramid. What is the height of the pyramid?



**Number Sense and Algebra**

The stores are advertising specials on apples.

Store A
8 apples for \$4.40

Store B
12 apples for \$5.76

Apples are sold individually.  
How much less would 30 apples cost at Store B than at Store A? Justify your answer.

Solve:

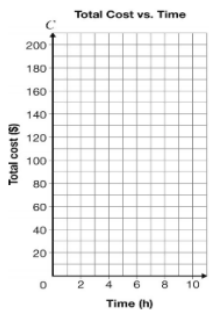
$$\frac{1}{2}(6x - 2) - \frac{3}{4}(8x + 12) = 5$$

Simplify:

$$\frac{12x^8y^5}{(2x^{-9}y^{-2})(9x^7y^{-3})}$$

**Linear Relations**

The total cost of horseback riding at a horse ranch is made up of a fixed fee and a cost per hour. The table below shows information about the total cost.  
Graph the data in the table on the grid below.

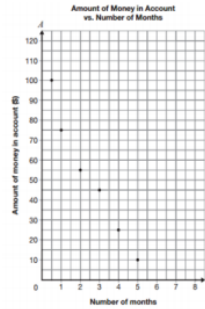


Time (h)	Total cost (\$)
2	50
4	80
7	125

Write an equation that relates the total cost of a ride  $C$ , to the time spent riding,  $t$ .

$C =$  \_\_\_\_\_

The graph below shows information about the amount of money,  $A$ , in Shreya's bank account and the number of months,  $n$ , she has had the account.



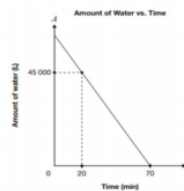
Draw the line of best fit for the data.

Determine the equation of your line of best fit.

**Analytic Geometry**

Not in the Ontario curriculum for grade 9 applied

The graph below represents the relationship between the amount of water,  $A$ , in a pool as it drains and time,  $t$ .



Determine the initial amount of water in the pool and the rate of change of this relation. Show your work.