

## Mathematics 101 Worksheet 5.6, 5.7

### Problems

1) Solve the proportions.

a)  $\frac{5}{4} = \frac{x}{6}$

b)  $\frac{x+2}{3} = \frac{5(x+1)}{4}$

2) In one game Peyton Manning completed 34 passes for 357 yards. At this rate how many yards would be gained for 22 passes?

3) Stephen drove his car 45 mi. He ran out of gas and had to walk 3 mi to a gas station. His speed driving is 15 times his speed walking. If the total time for the drive and the walk was  $1\frac{1}{2}$  hr, what was his speed driving?

4) Suppose  $y$  varies inversely with  $x$  and  $y=32$  when  $x=2$ . Find  $y$  when  $x=4$ .

5) The distance  $d$  that one can see to the horizon varies directly as the square root of the height above sea level. If a person 25 m above sea level can see 30 km, how far a person see if she is 64 m above sea level?