

MATH 4 SEMESTER 2: CLASSWORK 12
JANUARY 5, 2020

1. $distance = speed \times time$

This also allows you to find time if you know the speed and distance:

$$time = \frac{distance}{speed}$$

We decided to use the following letters

t – **time**

V- speed (**velocity**) (remember **velociraptor**)

S – distance from Latin **spatium**



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1. Complete measurements for the project "Properties of a Circle"
2. Compute: (*Remember: the common denominator is **LCM**; if you need to borrow from the whole part of the number, borrow **only 1***)

(a) $4\frac{5}{12} - \frac{8}{9} =$ (b) $2\frac{5}{8} - \frac{17}{24} =$ (c) $1\frac{1}{30} + \frac{5}{24} =$

3. Compute:

(d) $\frac{21}{16} \cdot \frac{4}{45} =$ (e) $\frac{9}{20} \cdot \frac{4}{27} =$ (f) $\frac{18}{7} \cdot \frac{7}{24} =$

4. Compute: (*First make all fractions irregular; then divide*)

(a) $\frac{10}{9} \div \frac{4}{3} =$ (b) $\frac{5}{4} \div \frac{3}{2} =$ (c) $\frac{121}{13} \div \frac{11}{13} =$

5. John got a new computer game for Christmas and loved it so much that he started playing it for 3 hours every school day. On the days when there is no school, he played this game for 7 hours. After 30 days of such gaming, he was hospitalized with brain fever. The doctors had told his parents that this condition usually occurs after 150 hours of gaming. Based on this information, can you find out how many of these 30 days were schooldays? (*Hint: use equation, make something X*)
6. TGV is [France's high-speed rail](#) service. TGV trains can comfortably go as fast as 300km/h, while Amtrak (US train service) top speed is 200 km/h. How long it will take for TGV and Amtrak to go from New York to Washington DC, if the distance between New York and Washington D.C. is 400 km? How much time we would save if TGV operated between New York and Washington DC?
7. (a) Find $1 + \frac{1}{4} + \frac{1}{6}$;
(b) The father has 2 sons. The age of the first son is $\frac{1}{4}$ of the father's age; the age of the second, $\frac{1}{6}$ of the father's age. The sum of the ages of the three of them is 51. How old is each of them? (*Hint: use equation*)