Fourth Class Senior.

1. A. can do as much work in 3 hours as B. can do in 5 hours. How long will it take A. to finish a piece of work of which B. has done ¾ in 15 days? *Ans.* 3 days.

2. A miller exchanges flour worth $6.60 per barrel with a farmer for hay worth $9 per ton. If the farmer asks $10.50 per ton for his hay, what should the miller ask for his flour? *Ans.* $7.70.

3. A merchant who clears 15 per cent. annually on his investment is forced to give up his business and to lend his money at 6¾ per cent. ; thus decreasing his income by $2,541. Find his investment.
  Ans. $30,800.

4. Four per cent. half-yearly is equivalent to what per cent yearly ?
  Ans. 8.16 per cent.

5. The amount of a certain sum of money at simple interest for 2½ years is $840 ; for 4 years it amounts to $924. Find the sum and the rate.   *Ans.* $700 ; 8 per cent.

6. Which is the more advantageous, buying goods at $4.12 on 6 months' time or buying the same goods at $4.06 on 3 months' time, if money be worth 6 per cent. ?
  Ans. Equal.

7. A bill of $738 is drawn on April 1st at 4 months; and discounted May 16th at 5 per cent. Find the proceeds.   *Ans.* $730.

8. Find the perimeter of a rectangular plot of ground whose length is 2½ times its breadth and contains 6¼ acres.
  Ans. 140 rods.

Fourth Class Junior.

1. A man travels 71 miles, 4 furlongs, 29 perches, 1 foot, 6 inches, going each hour 2 miles, 5 furlongs, 8 perches, 2 yards, 2 feet. How many hours will it take him.
  Ans. 27.

2. A field is 2,541 feet long and 2,200 fee wide. The owner builds a fence around it 5 boards high, using the greatest length of board possible without making any cuttings. Find the price of the boards at 3 cents each.
  Ans. $129.30.

3. What is the least sum of money with which a farmer can purchase lambs at $2½, sheep at $7½, and pigs at $3⅓ each, and how many of each can he buy with this sum of money? .   *Ans.* $30 ; 12, 4, 9.

4. A man pays a tax of 22 mills on $1, and then he has a net income of $978. Find his tax.   *Ans.* $22.

5. There are 50 pupils in a room 36 feet long, 30 feet wide, and 15 feet high. How many cubic yards of air are there for each pupil ?   *Ans.* 12.

6. A horse and carriage are valued at $350. One-third of the value of the horse is equal to ¼ the value of the carriage. Find the value of a team of such horses.
  Ans. $300.

7. A piece of cloth when measured by a yard measure .6 of an inch too short appears to be 60 yards long. Find its true length.   *Ans.* 59 yards.

8. A bankrupt's assets amount to $2,100, and he pays 30 cents on $1. Find his liabilities.   *Ans.* $7,000.

MAKE the school-room cheerful and attractive.

Do not allow pupils to direct their own studies.

NEVER let your pupils see that they can vex you.

ASK two questions out of the book for every one in it.

THE teacher must understand that on which he operates.

LET every lesson have a point, either immediate or remote.

NEVER tell a pupil to do a thing unless convinced he can do it.

NEVER be slow to commend a pupil for good work or deportment.