3. Why has Great Britain in the past kept a strong naval force and a small land force while other European Nations preferred the reverse? *Or*, What is the cause of twilight? Is the length of twilight the same over all parts of the earth; if not, where is it the longest, where the shortest?

4. What reasons can you give in explanation of the fact that Great Britain's leading industry is manufacturing? *Or*, From what part of the British Empire does England import (*a*) grain and flour, (*b*) meat, (*c*) wool, (*d*) cotton, (*e*) timber and lumber; (*f*) dairy produce, (*g*) sugar and spices?

5. Name the countries fighting on the side of the Allies; Name the countries fighting on the side of Germany. *Or*, Name the different kinds of winds on the earth's surface; Give the cause, direction and effect of the trade winds on commerce; What effect do they produce on climate, rainfall and vegetation in South America?

6. Where and for what noted are the following:—Guatemala, Gallipoli, Alexandria, Ashanti, Birkenhead, Ghent, Rheims, Spithead, Leghorn, Bosphorus, Brest-Litovsk, St. Quentin, Odessa?

7. Describe the geography of Africa noting form, coast waters, climate, rivers, exports and imports. Name the British possessions in Africa.

8. Name six of the longest rivers in Canada. Describe the St. Lawrence, giving the source, direction, outlet, length, cities on its banks, and a short description of it as a commercial highway.

ALGEBRA.—IX.

9 to 11 a. m., Wednesday, 26 June, 1918.

1. Divide $3p^4-7p\ (1-p^2)\ -(2+p^2)$ by $(3p+1)\ (p+1)$.

2. (*a*) Show that $x=6$ is a root of
$$(x-1)\ (x-2)\ (x-3)\ =2\ x\ (x-5)\ (2\ x-7);$$

(*b*) If weights of 8 lb. and 16 lb. balance at opposite ends of a lever 123 feet long, find the distance of the point of support from the larger weight.

3. Solve and verify $x-\frac{x-13}{9}=\frac{6x+1}{5}+\frac{2}{3}\left(6-\frac{3x}{2}\right)$.

4. A rectangular grass-plot has its length 5 yards longer than its width. A second plot, of equal area, is 5 yards longer and 3 yards narrower than the first. Find the dimensions of the first.

5. Solve: $$\frac{x-y}{2}+\frac{x+y}{3}=2\tfrac{1}{2}$$
$$\frac{x+y}{2}+\frac{x-y}{3}=4\tfrac{1}{6}$$

6. A man travelled 240 miles in 4 days, diminishing his rate each day by the same distance. The first two days he went 136 miles. How far did he go each day?

7. (*a*) Factor $x^2-2x-35$, $5-45a^2$, $16x^2-40\ xy+25y^2$;
(*b*) If $a=92$ and $b=88$, find the values of ab and a^2-b^2, using algebraic methods.

8. Simplify $$\frac{x^4-8x}{x^2-4x-5}\times\frac{x^2+2x+1}{x^3-x^2-2x}\div\frac{x^2+2x+4}{x-5}$$