Give two or three experiments which illustrate the compressibility and 4. expansibility of air.

5. Describe experiments to show what is meant by diffusion in gases and in liquids.

6. Give several experiments which show expansion due to heat. How is water peculiar in this respect? At what temperature is water densest?

7. Why is a quantity of ice at O° C more effective for cooling a room in summer, than the same mass of water at the same temperature? Or, How has the velocity of sound in water been determined? Or, What is the law of re-flection of light? Illustrate by supposing a candle placed in different positions before a plane mirror; Or, Describe any electric cell.

8. Find the vibration numbers of all the C's on the piano, taking middle $261 \cdot Or$. What is the use of the middle defined in the piano of the pian C as 261; Or, What is the use of the prism in optics? Or, Give some practical applications of the magnetic effects of the electric current.

LATIN.-X.

9 to 11 a. m., Thursday, 27 June, 1918.

1. (a) Decline together meus paler, majus onus, ea mulier. (b) Compa^{re} the adverbs late, libere, longe, magnopere, parum, bene, male.

(a) Write the first person singular imperfect subjunctive of eo, $f^{e/o}$, volo, fio, sum. (b) Point out peculiarities in fio, both in form and function.

3. (a) What is the distinction in use between at que and ac? (b) What is distinction in meaning between the between at que and ac? b. (a) What is the distinction in use between *at que* and *ac*? (b) What *d* and the distinction in meaning between the Latin words generally translated and (et, -que, at que (ac)? (c) Explain the significance of the Latin suffixes, *-tas*, *-tio*, *-arius*, and point out the forms representing them in English.

Explain and illustrate the following constructions: Partitive Genitive, the and Ablative of Quality David David Partitions: Genitive and Ablative of Quality, Double Dative, Ablative of Separation, Abla-tive Absolute tive Absolute.

5. Translate into English: (1) Facill me impetum hostium diutius sustine bimus. Relignum everyitum and land in the true of the (2) Reliquum exercitum, quod longe aberat, non exspectabamus. (3) Non mihi et rei publicae utilis fuisti. (4) Memini id: memor ero vestri. (5) Non contra pueros, sed contra viros missi sumus.

6. Translate into English: (1) Ceteris spe libertatis persuasit. (2) Quaerit cur tam celeriter revertantur. (3) Celeriter fama ad omnes Galliae civitates perferetur. (4) Liberius et audacius de ballater ad omnes Galliae Ratbari, perferetur. (4) Liberius et audacius de bello consilia inibant. (5) ea spe dejecti, oppugnatione desistunt.

7. Translate into Latin: (1) It is not the custom of the Roman people to give hostages. (2) They seek aid from Caesar. (3) Ambassadors are sent to Caesar by all the barbarians. (4) The war will speedily be finished. (5) They meet Caesar coming hither.

8. Translate into Latin: (1) They use swords most easily. (2) He re-moved all the horses from sight. (3) He wrote that he had expelled the Gauls. (4) The same day he was informed that the enemy had encamped under the mountains.

ARITHMETIC .--- X.

3 to 5 p. m., Thursday, 27 June, 1918.

1. (a) Define: Abstract number, concrete number. (b) To which of e two classes does the multiplier belong; and the cubic the cubic tents these two classes does the multiplier belong; and why? (c) Discuss the quotients obtained, first, when \$25 is divided by 5, and secondly, when divided by \$6. (d) Explain the principle of equivalence in fraction.