

$$\therefore (-x+6)(-x-10) = \frac{7}{8}(-x)(-x-4)$$

$$x^2 + 4x + 4 = 484$$

$$-x = 24 \text{ or } 24 \text{ downwards.}$$

It will be noticed that the triangles are the same in form, but different in position.

PROBLEMS.

(97 Note.) None of our correspondents have noticed the intention of this problem. It is required to classify alumina *according to the definition* proposed, and the difficulty to be met is that towards a strong acid alumina acts as a base, while towards a strong base it acts as an acid.

(96 Note.) To be solved by Arithmetic. (Alligation).

99. "The flocks of birds increased, and were composed not only of sea-fowl, but of such land birds as could not be supposed to fly far from the shore."—4th Reader, page 47.

"The hopes of his companions subsided faster than they had risen."—4th Reader, page 46.

Parse the words *as*, and *than* in the foregoing sentences.

ALEX'R MCINTOSH, Pinkerton.

100. Analyze, and parse underlined words,

"She became at length so embarrassed with hostilities at home, *as to be oblivious* of her more remote subjects."—Fourth Reader, page 2, line 11 from the bottom."

T. J. GODFREY, Seaforth.

101. A uniformly flat triangular stone whose sides are 25 inches, 30 inches, and 40 inches, is carried by three men, each supporting a corner. Compare the weights supported by the men.

II. A. JAMESON, Glenmorris.

102. The slant side of a roof is 18ft. and its edge is 37ft. from the ground. A boy starts his ball down the roof with a velocity which would just carry it from the side to the edge in one second of time. The ball is caught by a second boy whose hand is 3ft. from the ground. How far is the second boy from the side of the house, the roof making an angle of  $30^\circ$  with a horizontal line. (Answer must not contain surds.)

DITTO.

103. A drover paid the sum of £100 for 100 head, consisting of oxen, pigs and geese, he was to pay for each ox £4, for each sheep £1, each goose 1s, how many of each did he buy?

R. M. WHITE, Northport.

104. The hour, minute, and second-hands of a watch revolve uniformly on concentric axes, they are together at noon, how soon will the second hand be midway between the other two? When will the second bisection occur?

SELECTED.

EDITOR'S DRAWER.

—We always re-mail copies of the TEACHER which have gone astray when notified promptly, but can not promise to do so after the lapse of several months.

—It is again mooted that Dr. Ryerson is about to retire from the position of Chief Superintendent of Education. The venerable Chief is certainly well entitled to repose after his long service of thirty years.

—We wish it to be distinctly understood that while allowing a fair latitude for the discussion of educational questions, we do not hold ourselves responsible for the opinions of our contributors or correspondents.

—We would be greatly obliged to postmasters, or others, for as many copies of the "Teacher" for February 1875, as they can send us. We have been quite unable to supply the demand for this No.