

Ratios, rates, and proportions

Zhang Lei spent \$20.00 during his last outing at the bowling alley. This included a one time shoe rental fee of \$3.50. He spent the rest of the money on bowling a number of games. If it took Zhang Lei 45 minutes to bowl each game and he spent 2 hours and 15 minutes bowling, how much did it cost per game?

(A) \$3.00

(B) \$5.50

(C) \$6.67

(D) \$7.34

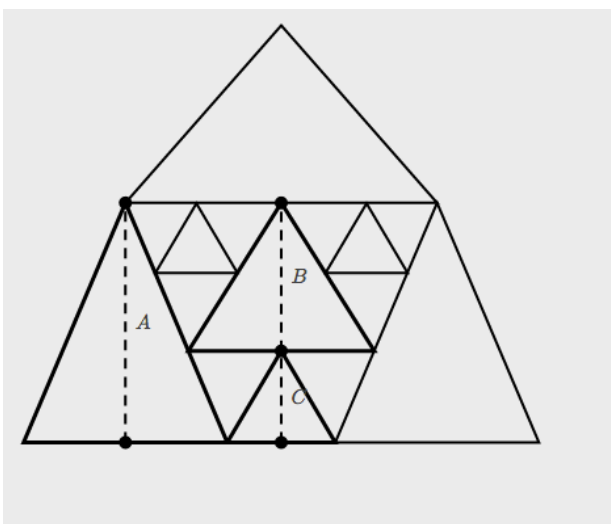
During a timed test, Alexander typed 742 words in 14 minutes. Assuming Alexander works at this rate for the next hour, which of the following best approximates the number of words he would type in that hour?

(A) 53

(B) 840

(C) 3180

(D) 44,520



A quilter wants to make the design shown at left using the Golden Ratio. Specifically, he wants the ratio of the triangle heights $A : B$ and $B : C$ to each equal 1.62. If the quilter makes the triangle height $A = 8$ in, approximately how tall should he make triangle height C ?

(A) 3 in

(B) 4 in

(C) 5 in

(D) 6 in

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Elena is conducting a study about the effects of toxins in the water on the hormones of fish. Elena surveys 350 male fish in a river and finds that 150 of the male fish have egg cells growing inside them. According to Elena's survey, what is the ratio of male fish with egg cells to male fish without egg cells in the river?

A 3 : 4

B 3 : 7

C 4 : 5

D 4 : 7

The ratio of the amount of vitamin A in cow milk to the amount of vitamin A in goat milk is 3 to 4. If a liter of cow milk has 1560 international units (IU) of vitamin A, how many IU of vitamin A are in a liter of goat milk?