NC EMPT'S
QUESTION?
of the week

Question 28
March 24, 2025

north carolina
EARLY
math

It took a copier from 11:12 am until 11:22 am the same day to complete an order that required 45 copies. If the next order is begun at 5:58 pm and requires 135 copies, what is the earliest it will be done?
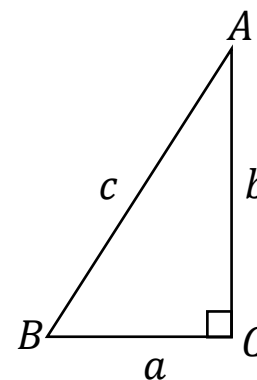
A. 5:28 pm   B. 6:28 pm   C. 6:58 pm   D. 6:32 pm   E. 6:18 pm

Last Week's Answer

How long is the hypotenuse c of a right triangle whose leg b measures $4h$ units, and whose leg a measures $2h$ units (h>0)?

A. $4h\sqrt{5}$

B. $3h\sqrt{5}$

C. **$2h\sqrt{5}$**

D. $5h\sqrt{2}$

E. $\dfrac{3h\sqrt{5}}{2}$

Solution: Since this is a right triangle and the lengths of two sides are given, use the Pythagorean Theorem to find the length of the third side in terms of h.

$$a^2 \ + \ b^2 \ = \ c^2$$

$$(2h)^2 + (4h)^2 = c^2$$
$$4h^2 + 16h^2 = c^2$$
$$20h^2 = c^2$$
$$\sqrt{20h^2} = \sqrt{c^2}$$
$$2h\sqrt{5} = c$$

Each week, we'll reveal the answer to the previous week's question!