Answer on Question #73703 – Math – Algebra

Question

2 men or 3 women can do a piece of work in 20 days working 8 hrs a day. Find the number of days required for 8 men and 4 women to complete the same work working 7 1/2 hours?

Solution

There are 2 men or 3 women. They can do this piece of work in 20 days.

Let's find all working hours per 1 woman:

IF 3 women need 20 days * 8 hours

THEN 1 woman needs 3 * 20 days * 8 hours = 3 * 160 = 480 hours

Also

2 men = 3 women

1 man = 1.5 women

According to task:

8men + 4women = 8 * (1.5women) + 4women = 12women + 4women = 16women

IF 1 woman needs 480 hours

THEN 16 women need 480h/16 = 30h

30h/7.5h = 4 days

Answer:

8 men and 4 women can do a piece of work in 4 days working 7 1/2 hrs a day.