

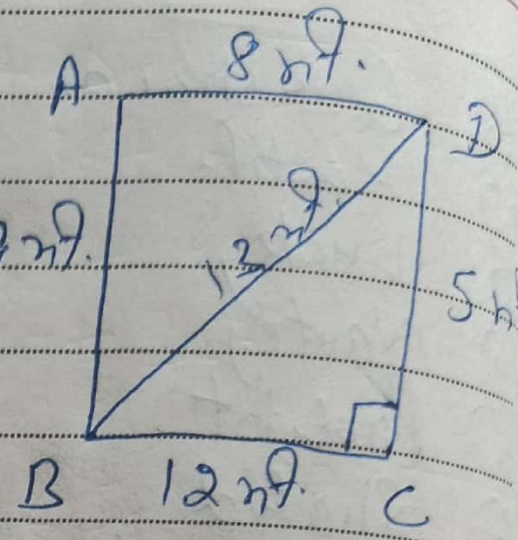
ਸ਼: ① $AB = 9$ ਮੀ.

$BC = 12$ ਮੀ., $\angle C = 90^\circ$

$CD = 5$ ਮੀ.

$AD = 8$ ਮੀ.

BD ਦੀ ਲੰਬਾਈ



$\triangle BCD$ ਇੱਕ ਸਿੱਧੇ ਕੋਣ ਦਾ ਤਿਥੀ ਹੈ,
ਇਸ ਲਈ, ਪਾਈਥਾਗੋਰਸ ਸਿਧਾਂਤ ਦੀ ਵਰਤੋਂ

$$\begin{aligned} BD &= \sqrt{BC^2 + CD^2} \\ &= \sqrt{(12)^2 + (5)^2} \\ &= \sqrt{144 + 25} \\ &= \sqrt{169} \end{aligned}$$

$$BD = 13 \text{ ਮੀ.}$$

ਸ਼ $BC (a) = 12$ ਮੀ.

$CD (b) = 5$ ਮੀ.

$BD (c) = 13$ ਮੀ.

ਮੱਧ ਪਰਿਮਾਪ (s) = $\frac{a+b+c}{2}$

$$= \frac{12+5+13}{2}$$

$$= \frac{30}{2}$$

$$= 15 \text{ ਮੀ.}$$

March 2010

Sunday 14

$$\begin{aligned}\Delta BCD \text{ का } \text{क्षेत्रफल} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{15(15-12)(15-5)(15-13)} \\ &= \sqrt{15 \times 3 \times 10 \times 2} \\ &= \sqrt{3 \times 5 \times 2 \times 2 \times 5 \times 2} \\ &= 2 \times 3 \times 5 \\ &= 30 \text{ म}^2\end{aligned}$$

$$AB (a) = 9 \text{ म}.$$

$$AD (b) = 8 \text{ म}.$$

$$BD (c) = 13 \text{ म}.$$

$$s = \frac{a+b+c}{2}$$

$$= \frac{9+8+13}{2}$$

$$= \frac{30}{2}$$

$$= 15 \text{ म}.$$

$$\begin{aligned}\Delta ABD \text{ का } \text{क्षेत्रफल} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{15(15-9)(15-8)(15-13)} \\ &= \sqrt{15 \times 6 \times 7 \times 2} \\ &= \sqrt{3 \times 5 \times 2 \times 3 \times 7 \times 2} \\ &= 2 \times 3 \times \sqrt{35} \\ &= 6\sqrt{35} \text{ म}^2\end{aligned}$$

March 2010

Monday 15

જેવોજેવો ABCD રી હોય = ΔBCD રી
+ ΔABD રી

$$= 30 + 6\sqrt{35}$$

$$= 30 + 6 \times 5.916$$

$$= 30 + 35.496$$

$$= 65.496 \text{ m}^2$$

$$= 65.5 \text{ m}^2 \text{ (40) 30}$$

$$\sqrt{35} = 5.916$$

$$5.916 \times 6$$

$$35.496$$

જેવોજેવો ABC રી

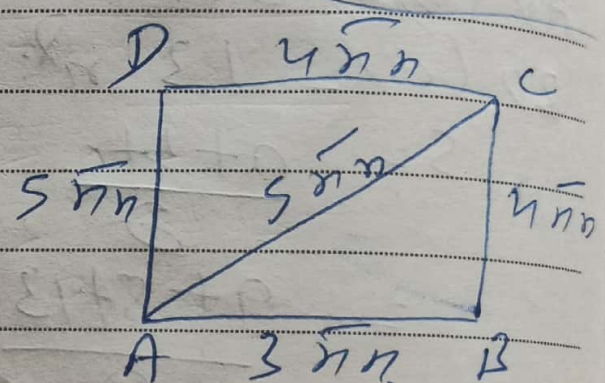
$AB(a) = 3 \text{ m}$
 $BC(b) = 4 \text{ m}$
 $AC(c) = 5 \text{ m}$

$$s = \frac{a+b+c}{2}$$

$$= \frac{3+4+5}{2}$$

$$= \frac{12}{2}$$

$$= 6 \text{ m}$$



જેવોજેવો ABC રી હોય

$$= \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{6(6-3)(6-4)(6-5)}$$

$$= \sqrt{6 \times 3 \times 2 \times 1}$$

$$= \sqrt{6 \times 6}$$

$$= 6 \text{ m}^2$$

ΔACD રી
 $AD(a) = 5 \text{ m}$
 $CD(b) = 4 \text{ m}$
 $AC(c) = 5 \text{ m}$

$$s = \frac{a+b+c}{2}$$

$$= \frac{5+4+5}{2}$$

$$= 7 \text{ cm}$$

$$\Delta ACD \text{ का क्षेत्रफल} = \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{7(7-5)(7-4)(7-5)}$$

$$= \sqrt{7 \times 2 \times 3 \times 2}$$

$$= 2\sqrt{21}$$

$$= 2 \times 4.583$$

$$= 9.166 \text{ cm}^2$$

$$\sqrt{21} = 4.583$$

$$\text{कुल क्षेत्रफल } ABCD \text{ का क्षेत्रफल} = \text{ar.}(\Delta ABC) + \text{ar.}(\Delta ACD)$$

$$= 6 + 9.166$$

$$= 15.166 \text{ cm}^2$$

$$= 15.2 \text{ cm}^2 \text{ (approx.)}$$

ਭਾਗ I ਦਿੱਤਾ

$$a = 5 \text{ ਮੀ}$$

$$b = 5 \text{ ਮੀ}$$

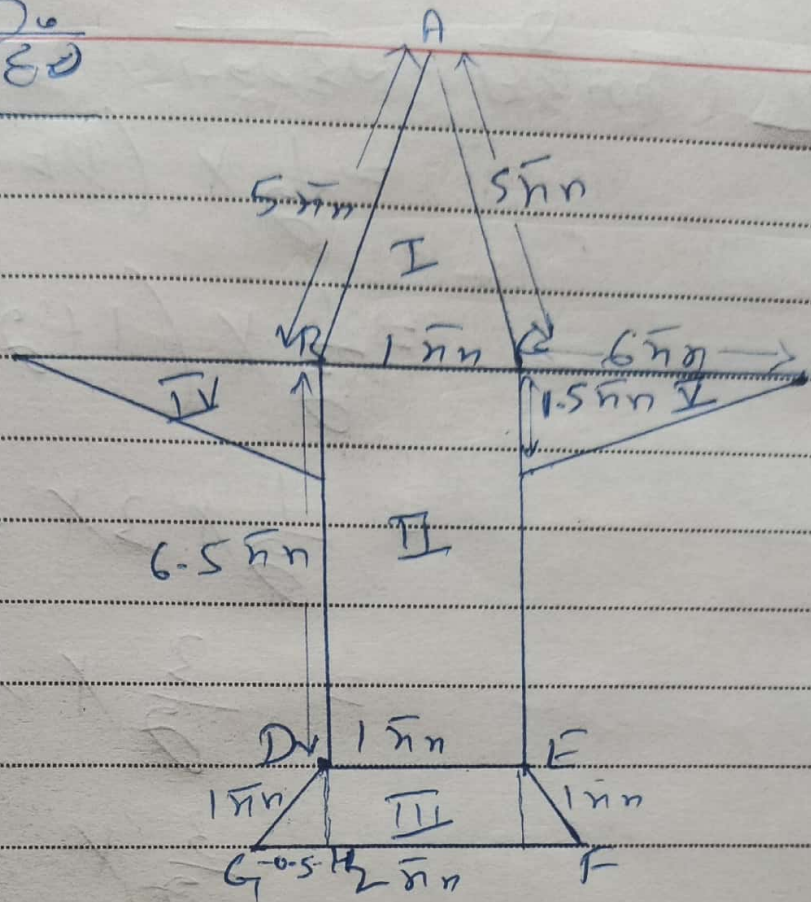
$$c = 1 \text{ ਮੀ}$$

$$s = \frac{a+b+c}{2}$$

$$= \frac{5+5+1}{2}$$

$$= \frac{11}{2}$$

$$= 5.5 \text{ ਮੀ}$$



$$\text{ਖੇਤਰ} = \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{5.5(5.5-5)(5.5-5)(5.5-1)}$$

$$= \sqrt{5.5 \times 0.5 \times 0.5 \times 4.5}$$

$$= \sqrt{0.5 \times 11 \times 0.5 \times 0.5 \times 0.5 \times 3}$$

$$= 0.5 \times 0.5 \times 3 \times \sqrt{11}$$

$$= 0.75 \times 3.31$$

$$= 2.4825 \text{ ਮੀ}^2$$

ਭਾਗ II ਦਾ ਖੇਤਰ = ਫੰਦਾਈ x ਚੜ੍ਹਾਈ

$$= 6.5 \times 1$$

$$= 6.5 \text{ ਮੀ}^2$$

March 2010

Friday 19

ਗੁਣ 111 (ਅਨੁਸਾਰ) ਦਾ 4268

$$= \frac{1}{2} \times (DE + GF) \times \sqrt{DG^2 - GH^2}$$

$$= \frac{1}{2} \times (1 + 2) \times \sqrt{(1)^2 - (0.5)^2}$$

$$= \frac{1}{2} \times 3 \times \sqrt{1 - 0.25}$$

$$= \frac{3}{2} \times \sqrt{0.75}$$

$$= \frac{3}{2} \times \sqrt{\frac{75}{100}}$$

$$= \frac{3}{2} \times \sqrt{\frac{3}{4}}$$

$$= \frac{3}{2} \times \frac{\sqrt{3}}{2}$$

$$= \frac{3}{4} \times 1.732$$

$$= \frac{5.196}{4}$$

$$= 1.299 \text{ mm}^2$$

March 2010

Saturday 20

$$= 2 \times \left(\frac{1}{2} \times 1.5 \times 6 \right)$$

$$= 2 \times 4.5$$

$$= 9 \text{ mm}^2$$

$$\text{Total Area} = 2.4825 + 6.5 + 1.299 + 9$$

$$= 19.28 \text{ mm}^2$$

Q. (4)

$$a = 26 \text{ mm}$$

$$b = 28 \text{ mm}$$

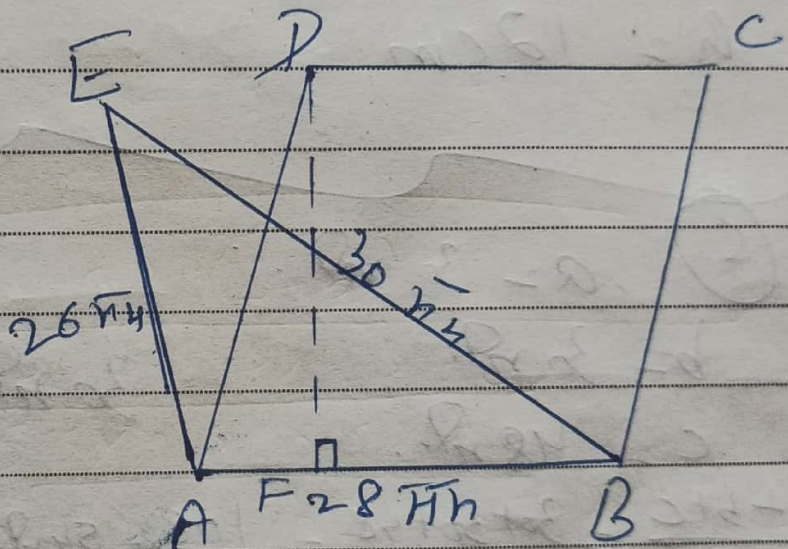
$$c = 30 \text{ mm}$$

$$s = \frac{a+b+c}{2}$$

$$= \frac{26+28+30}{2}$$

$$= \frac{84}{2}$$

$$= 42 \text{ mm}$$



$$\therefore \Delta ABE = \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{42(42-26)(42-28)(42-30)}$$

$$= \sqrt{42 \times 16 \times 14 \times 12}$$

$$= \sqrt{2 \times 3 \times 7 \times 2 \times 2 \times 2 \times 2 \times 7 \times 2 \times 2 \times 3}$$

$$= 2 \times 2 \times 2 \times 2 \times 3 \times 7$$

$$= 336 \text{ mm}^2$$

March 2010

Sunday 21

ΔADE ਦਾ ਖੇਤਰ = ਜਾਂਤਾ ΔABC ਦਾ ਖੇਤਰ

$$336 = AB \times DF$$

$$336 = 28 \times DF$$

$$\frac{336}{28} = DF$$

$$12$$

$$12 \text{ cm} = DF$$

$$h = 12 \text{ cm}$$

ਯ: (5)

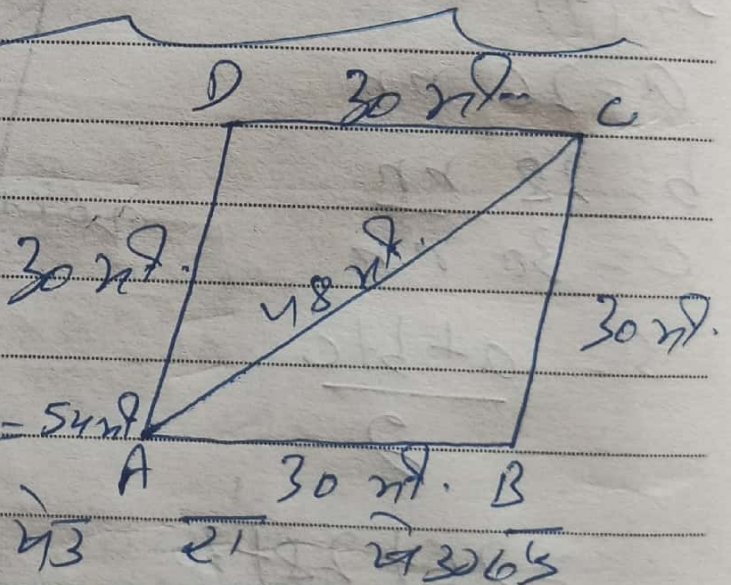
$$a = 30 \text{ m}$$

$$b = 30 \text{ m}$$

$$c = 48 \text{ m}$$

$$s = \frac{a+b+c}{2} = \frac{30+30+48}{2} = \frac{108}{2} = 54 \text{ m}$$

ਜਾਂਤਾ ΔABC ਦਾ ਖੇਤਰ



$$= 2 \times \sqrt{s(s-a)(s-b)(s-c)}$$

$$= 2 \times \sqrt{54(54-30)(54-30)(54-48)}$$

$$= 2 \times \sqrt{2 \times 3 \times 3 \times 2 \times 2 \times 2 \times 6}$$

$$= 2 \times \sqrt{2 \times 3 \times 3 \times 2 \times 2 \times 2 \times 2 \times 3 \times 2}$$

$$= 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3$$

$$= 864 \text{ m}^2$$

ਮਾਰਚ

March 2010

1 ਚੋਤ, ਸੋਮਵਾਰ

Monday 22

18 ਗਤੀਆਂ ਕਰੀ ਤਰ੍ਹਾਂ ਦੀ ਘਰ = 864 ਮੀ.ਤ

1 ਗਤੀ = 48 ਮੀ.ਤ

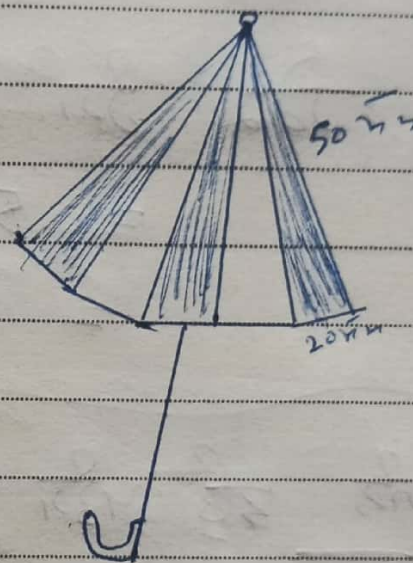
$\frac{864}{18} = 48 \text{ ਮੀ.ਤ}$

ਘੋੜਾ-6

$$a = 20 \text{ ਮੀ.}$$

$$b = 50 \text{ ਮੀ.}$$

$$c = 50 \text{ ਮੀ.}$$



$$s = \frac{a+b+c}{2}$$

$$= \frac{20+50+50}{2}$$

$$= \frac{120}{2}$$

$$= 60 \text{ ਮੀ.}$$

ਘੋੜੇ ਦਿੱਤਾ ਹੋਇਆ ਖੇਤਰ = $\sqrt{s(s-a)(s-b)(s-c)}$

$$= \sqrt{60(60-20)(60-50)(60-50)}$$

$$= \sqrt{60 \times 40 \times 10 \times 10}$$

ਮਾਰਚ
March 2010

2 ਚੇਤ, ਮੰਗਲਵਾਰ
Tuesday 23

$$= \sqrt{240000}$$

$$= \sqrt{2 \times 2 \times 2 \times 2 \times 10000}$$

$$= 200\sqrt{6} \text{ ਜ਼ਮੀ.}^2$$

10 ਫ਼ਿਕਰਾਂ ਵਿਚ 5 ਦੁਰਤੀਆਂ ਦੇ ਰੋਗਾਂ ਵਿਚ
ਇਹ ਤਰ੍ਹਾਂ ਹੋਵੇਗਾ ਕਿ ਮੇਰੇ ਤੋਂ

$$= 5 \times 200\sqrt{6} \text{ ਜ਼ਮੀ.}^2$$

$$= 1000\sqrt{6} \text{ ਜ਼ਮੀ.}^2$$

ਜਾਂਦਾ ਹੈ ਕਿ ਇਹ ਪਤੰਗ (ਫ਼ਿਕਰਾਵਾਂ)

ਇਹ ਤਰ੍ਹਾਂ $\triangle ACD$ ਵਿਚ

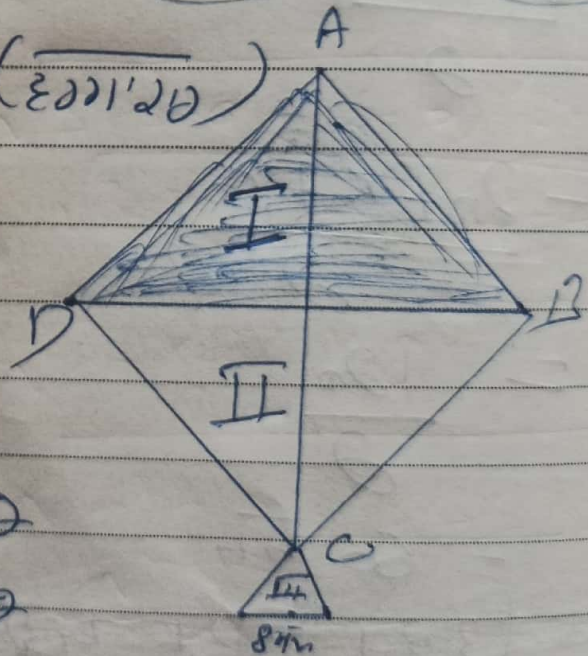
ਪਾਈਥਾਗੋਰਸ ਸਿਧਾਂਤ
ਦੁਆਰਾ

$$AD^2 + DC^2 = AC^2$$

$$a^2 + a^2 = (32)^2$$

$$2a^2 = 1024$$

$$a^2 = \frac{1024}{2} = 512 \text{ ਜ਼ਮੀ.}^2$$



$$\overline{ਖੇਤਰ} = 512 \text{ ਮ}^2$$

$$\begin{aligned} \text{ਗੁਣ I ਦਾ } \overline{ਖੇਤਰ} &= \text{ਗੁਣ II ਦਾ } \overline{ਖੇਤਰ} \\ &= \frac{1}{2} \times 512 \\ &= 256 \text{ ਮ}^2 \end{aligned}$$

ਗੁਣ III ਦਿਓ

$$\begin{aligned} a &= 6 \text{ ਮ}, b = 6 \text{ ਮ} \\ c &= 8 \text{ ਮ} \end{aligned}$$

ਸਥਾ ਪਰਿਮਾਣ

$$s = \frac{a+b+c}{2}$$

$$= \frac{6+6+8}{2}$$

$$= \frac{20}{2} = 10 \text{ ਮ}$$

$$\begin{aligned} \text{ਗੁਣ III ਦਾ } \overline{ਖੇਤਰ} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{10(10-6)(10-6)(10-8)} \end{aligned}$$

$$= \sqrt{10 \times 4 \times 4 \times 2}$$

$$= \sqrt{2 \times 5 \times 2 \times 2 \times 2 \times 2 \times 2}$$

$$= 2 \times 2 \times 2 \times \sqrt{5}$$

$$= 8\sqrt{5}$$

$$= 17.88 \text{ ਮ}^2$$

$$\boxed{\sqrt{5} = 2.236}$$

ਮਾਰਚ
March 2010

Thursday 25

ਜੱਥਾ 8 ਟਾਈਲ ਦੀ ਖੇਤਰ

$$a = 9 \text{ ਮੀ}$$

$$b = 28 \text{ ਮੀ}$$

$$c = 35 \text{ ਮੀ}$$

$$\text{ਮੱਧ ਪਰਿਮਾਪ (s)} = \frac{a+b+c}{2}$$

$$= \frac{9+28+35}{2}$$

$$= \frac{72}{2}$$

$$= 36 \text{ ਮੀ}$$

$$\text{ਟਾਈਲ ਦਾ ਖੇਤਰ} = \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{36 \times (36-9) \times (36-28) \times (36-35)}$$

$$= \sqrt{36 \times 27 \times 8 \times 1}$$

$$= \sqrt{2 \times 2 \times 3 \times 3 \times 3 \times 3 \times 3 \times 2 \times 2 \times 2}$$

$$= \sqrt{2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 3}$$

$$= 36 \sqrt{6} \text{ ਮੀ}^2$$

$$= 36 \times 2.45$$

$$= 88.2 \text{ ਮੀ}^2$$

$$\left[\sqrt{6} = 2.45 \right]$$

March 2010

Friday 26

$$1 \text{ mm} \times \frac{2}{9} \times \frac{1}{2} \times \frac{1}{2} = 0.50 \text{ mm}$$

ਮੱਥ: ੯ ਮੈਂ ਫੜੇ
 ਚੜ੍ਹੇ ਚੜ੍ਹੇ $ABCD$ ਇਹ
 ਸਮਝਦੇ ਚੜ੍ਹੇ ਚੜ੍ਹੇ 13 ਮੀ.
 ਮਾਰਾ ਪੈਰੇ 10 ਮੀ.
 ਮਿਤ ਇਹ $AB \parallel DC$

CM LAB $\frac{1}{m.s}$ $\frac{AC}{CE \parallel AD} 25 \frac{m}{hr}$ $\frac{M}{\rightarrow B}$

73/ ΔBCE $\frac{2}{3}$

$a = 13 \text{ m}$, $b = 14 \text{ m}$, $c = 15 \text{ m}$

$$s = \frac{a+b+c}{3} = \frac{13+14+15}{3}$$

$$= \frac{42}{2} = 21 \text{ ng}$$

ਮਾਰਚ

March 2010

6 ਚੇਤ, ਸਨਿੱਚਰਵਾਰ

Saturday 27

$$\begin{aligned}\Delta BEC \text{ ਦਾ ਖੇਤਰ} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{21(21-13)(21-14)(21-15)} \\ &= \sqrt{21 \times 8 \times 7 \times 6} \\ &= \sqrt{3 \times 7 \times 2 \times 2 \times 2 \times 7 \times 2 \times 3} \\ &= 2 \times 2 \times 3 \times 7 \\ &= 84 \text{ ਮ.}^2\end{aligned}$$

$$\Delta BEC \text{ ਦਾ ਖੇਤਰ} = \frac{1}{2} \times EB \times CM$$

$$84 = \frac{1}{2} \times 15 \times CM$$

$$\frac{84 \times 2}{15} = CM$$

$$\frac{168}{15} = CM$$

$$11.2 \text{ ਮ.} = CM$$

ਮਾਰਚ

March 2010

7 ਚੇਤ, ਐਤਵਾਰ

Sunday 28

ਸਿਮਘ ਸਾਕਿਰ ਦੇ ਖੇਤ ਦਾ ਖੇਤਰ

$$= \frac{1}{2} \times (AB + DC) \times CM$$

$$= \frac{1}{2} \times (25 + 10) \times 11.2$$

$$= \frac{1}{2} \times 35 \times 11.2$$

$$= 35 \times 5.6$$

$$= 196 \text{ ਮੀ}^2$$