Geometry Wed. 4-24-13 Class Notes

Homework review

(9) $4 \cdot 3 = 12$ ways

(11) $_nP_r = \frac{N!}{(N-r)!}$

$$_9P_2 = \frac{9!}{(9-2)!} = \frac{9!}{7!} = 72 \text{ ways}$$

(13) $$_5P_2 = \frac{5!}{3!} = 20 \text{ ways}$$

(15) $$_{49}C_6 = \frac{49!}{43!\,6!} = 13,983,816$$

$$_{49}C_7 = \frac{49!}{42!\,7!} = \frac{85,900,584}{71,916,768}$$

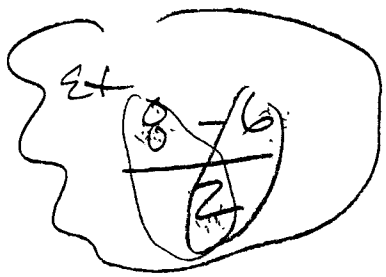
$$_nC_r = \frac{N!}{(N-r)!\,r!}$$

(17) $_5C_5 = \dfrac{5!}{(5-5)!\,5!} = \boxed{1}$

(19) $_6C_1 = \dfrac{6!}{(6-1)!\,1!} = \boxed{6}$

(21) $\dfrac{4!\,3!}{2!} = \dfrac{(4\cdot3\cdot2\cdot1)(3\cdot2\cdot1)}{(2\cdot1)} = \boxed{72}$

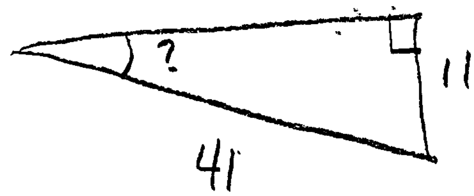
(23) $\dfrac{8!-5!}{(8-5)!} = \dfrac{(8\cdot7\cdot6\cdot5\cdot4\cdot3\cdot2\cdot1)-(5\cdot4\cdot3\cdot2\cdot1)}{3\cdot2\cdot1}$



$= 6720 - 20 = \boxed{6700}$

Worksheet Practice

(12)

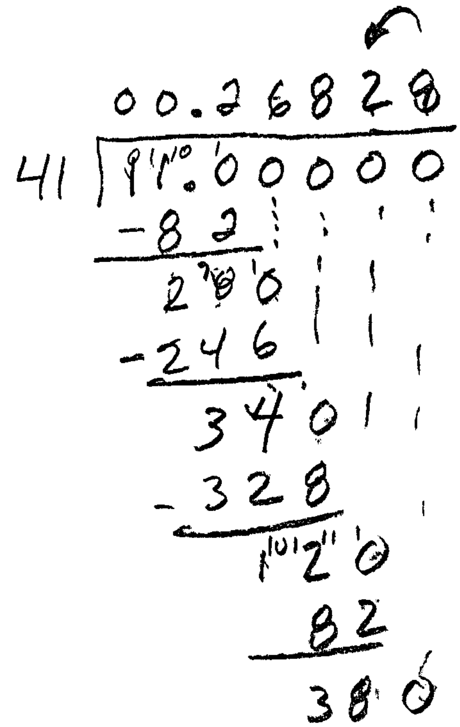


Let ? = θ

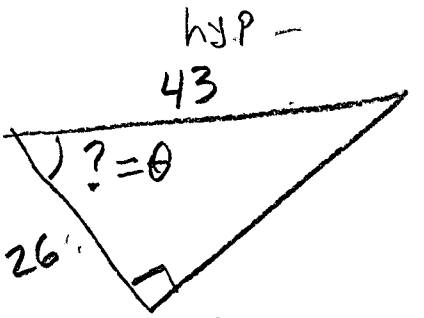
$\sin\theta = \frac{11}{41}$

$\sin^{-1}(.2683) = \theta$

$16° = \theta$



(8)



$\cos\theta = \frac{a}{h}$

$\cos\theta = \frac{26}{43}$

$\cos^{-1}(.6047) = \theta$

$53^\circ = \theta$

00.60465
43 | 26.00000
-258
220
172
480
-258
220
215

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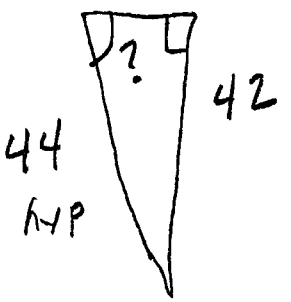
(20)



$\sin\theta = \frac{42}{44} = \frac{21}{22}$

00.954954
22 | 21.000000
198
120
110
1000
-88
120

$\sin^{-1}(.9550) = \theta$

$73^\circ \approx \theta$