

Geometry Weds. 4-24-13 CLASS NOTES

Home-work
Review

$$4 \cdot 3 = \boxed{12 \text{ ways}}$$

$$\textcircled{11} \quad nPr = \frac{n!}{(n-r)!}$$

$$9P_2 = \frac{9!}{(9-2)!} = \frac{9!}{7!} = \boxed{72 \text{ ways}}$$

$$\textcircled{13} \quad 5P_2 = \frac{5!}{3!} = \boxed{20 \text{ ways}}$$

$$\textcircled{15} \quad 49C_6 = \frac{49!}{43!6!} = 13,983,816$$

$$49C_7 = \frac{49!}{42!7!} = 85,900,584$$

$$\boxed{71,916,768}$$

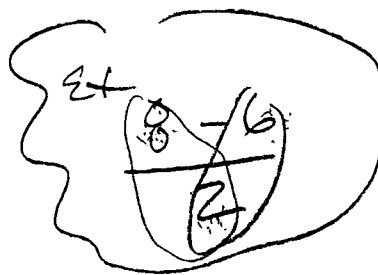
$$nC_r = \frac{n!}{(n-r)!r!}$$

$$(17) \quad {}_5C_5 = \frac{5!}{(5-5)! \cdot 5!} = \boxed{1}$$

$$(19) \quad {}_6C_1 = \frac{6!}{(6-1)! \cdot 1!} = \boxed{6}$$

$$(21) \quad \frac{4! \cdot 3!}{2!} = \frac{(4 \cdot 3 \cdot 2 \cdot 1)(3 \cdot 2 \cdot 1)}{(2 \cdot 1)} = \boxed{72}$$

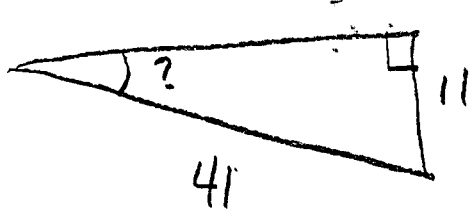
$$(23) \quad \frac{8! - 5!}{(8-5)!} = \frac{(8 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1) - (5 \cdot 4 \cdot 3 \cdot 2 \cdot 1)}{3 \cdot 2 \cdot 1}$$



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

Worksheet Practice

12



Let $\theta = ?$

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

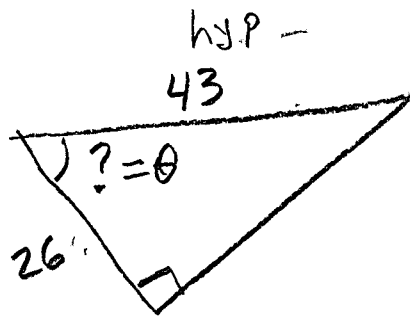
$$\sin^{-1}(.2683) = \theta$$

$16^\circ = \theta$

Handwritten long division calculation for $\frac{11}{41}$:

$$\begin{array}{r}
 00.26829 \\
 \hline
 41 \overline{) 11.00000} \\
 \underline{-82} \\
 280 \\
 \underline{-246} \\
 340 \\
 \underline{-328} \\
 120 \\
 \underline{-82} \\
 380
 \end{array}$$

⑧



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

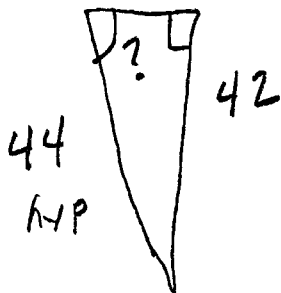
$$\cos \theta = \frac{26}{43}$$

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

$$\boxed{53^\circ = \theta}$$

$$\begin{array}{r}
 00.60465 \\
 \hline
 43 \overline{) 26.00000} \\
 \underline{-258} \\
 220 \\
 \underline{172} \\
 280 \\
 \underline{-258} \\
 220 \\
 215
 \end{array}$$

②



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

$$\sin^{-1}(.955) = \theta$$

$$\boxed{73^\circ \approx \theta}$$

$$\begin{array}{r}
 00.954954 \\
 \hline
 22 \overline{) 21.000000} \\
 \underline{198} \\
 120 \\
 \underline{110} \\
 4900 \\
 \underline{-88} \\
 120
 \end{array}$$