

ÁÐ³öÒÑ°²×°μÄÓÏ·¿ØÆÆ÷°ÍËüÃÇμÄ×

´ì¬;£ÈçÒ²²âÊÔ;ϕÄäÖÃ»ðÖØÐÂÐ£×¼¿ØÖÆÆ÷£¬ÇëÔÚÁÐ±íÖÐμ¥»÷ËüμÄÛ³Æ£¬È»°óμ¥»÷;°ÊêÐÔ;±  
j£

μϕ»÷ 'È'!ζÉÍ¼ÓΔÂμÄÓÏ·ζØÖÆÆ÷;£

„üĐÄİÖÊ¾ÔÚ;°Óİ·¿ØÖÆÆ÷;±ÁĐ±İÖĐμÄĐÄİç;£

É³⁴ýÑ;ñ~μÄÓñ·¿ØÖÆÆ÷;£

μ¥»÷ 'È'!¿É²âÊÔ;çÄäÖÃ»òÐ£×¼,ÃÓÏ·¿ØÆÆ÷;£

ÁÐ³öÒÑ°²×°ÔÚ,Ã¼ÆËä»úÉİμÄÄ,öÓİ·¿ØÖÆÆ÷μÄ¿ØÖÆÆ÷±êÊ¶·û;£  
¿ÉÔ,ü,Ä·ÖÅä,øÄ¿,öÓİ·¿ØÖÆÆ÷μÄ±êÊ¶·û;£

ÁÐ³ðÒÑ°²×°ÔÚ,Ã¼ÆËä»úÉİμÄÓİİ·¿ØÖÆÆ÷;£

ÁÐ³ö¿ØÖÆÆ÷±êÊ¶·ûÒÔ¼°·ÖÄä,øÃ¿Ò»±êÊ¶·ûμÄÓÏ·¿ØÖÆÆ÷;£



μϕ»÷´Ë´!¿É,ü,Ä·ÖÄä,øÑ;¶±êÊ¶°ÅμÄÓÏ·¿ØÖÆÆ÷;£

Ö, ¶ Óï·¿ØÖÆÆ÷¶ËËÚ£¨Èç¹úÐèÒµÄ»°£©ËùÓÃµÄ¶ËËÚ£

ÔÊĐÍÆäËÛÈè±, £"Èçμ÷ÖÆ½âμ÷Æ÷£©ÖĐŋŋŌŋŋ·¿ØÖÆÆ÷μÄ²Ù×÷;£μ«ÊÇ£-Ñ;ÖĐ,Ã,  
'Ñ;¿ò»ám¼ÖÄŌŋŋ·¿ØÖÆÆ÷³öŋŋŌ»ŋ"μÄ·'Ō;ÑŌ³Ù;£  
Èç¹úŌŋŋ·ËŌŌŋŋŋ·ÖĐ¹××÷²»ŌýÈ·£-ÇëÇâ³ý,Ã, 'Ñ;¿ò;£  
Èç¹úŌŌÍæÁ³»úŌŋŋ·Ë±μ÷ÖÆ½âμ÷Æ÷¹××÷²»ŌýÈ·£-»ðŌŌÊ¹ŌŌŋŋŋ·¿ØÖÆÆ÷Ê±·  
ϕÉúÁËÍØÂç»ðÆäËÛŌ²¼þÎÊÎâ£-ÇëÑ;ÖĐ,Ã, 'Ñ;¿ò;£

Í-Ê±°´ÀàÐÍ£¨ÀýÈçÁ½,ö°´Á¶µÄ·ÉÐÐ²Ù×Ý,Ë£©º²úÆ·Ãû³Æ£¨ÀýÈç Microsoft SideWinder 3D

Pro£©ÁÐ³öÓÏ·¿ØÖÆÆ÷;£Èç¹û¿ÉÄÜ£¬ÇëÑ;ÔñÓÏ·¿ØÖÆÆ÷µÄ²úÆ·Ãû³Æ;£

Èç¹û

´ÁÐ³öÓÏ·¿ØÖÆÆ÷µÄ²úÆ·Ãû³Æ»ðÀàÐÍ£¬Çëµ¶»÷;º²úÆ·Ãû³Æ»÷±ÒÒ²×°ÆäÇý¶³ìÐð£¬»ðµ¶»÷;º²úÆ·Ãû³Æ»÷

Òâ;±ÒÒ²,¶³ìÐð·¿ØÖÆÆ÷µÄìØÐÔ;£

Èç¹úÓÏ·¿ØÖÆÆ÷í´ÁÐ³öÇÒÀúÓÐ°²×°Àì£¬Çëμ¥»÷´Ë´ì;£ÔÚíÀò»¸,ö¶Ô»°¿òÉí£¬μ¥»÷ì°´Ó´ÀÀì°²×°;±  
£¬È»°ó´ÖÖÆÁÄ»ìáÊ¾²Ù×÷;£

Èç¹úÓÏ·¿ØÖÆÆ÷Í´ÁÐ³öÇÒÄúÃ»ÓÐ°²×°Àì£¬Çèμ¥»÷´È´ì;£¿ÉÖ,¶´¿ØÖÆÆ÷μÄìØÐÔ;£

Ö, ¶ Öí·¿ØÖÆÆ÷ÖáµÄÊýÄ¿;£¼;¹ÜÓÐÀýÍâ£¬Á½ÖáÓí·¿ØÖÆÆ÷Í³£  
¿ÉÔÔÉíÄ×óÓÒÒÆ¶;£ÊýÖáÓí·¿ØÖÆÆ÷Í³£°üº¬½ÚÁ÷·§¿ØÖÆ;£ËÄÖáÓí·¿ØÖÆ÷ÔðÍ³£°üº¬½ÚÁ  
÷·§Í·½Ïð¶æ;£

Ö, ¶ Öí·¿ØÖÆÆ÷°´Å¶µÄÊýÄ¿;£



Ö, ¶ ÈùÉéÖÄÓÏ·¿ØÆÆ÷μÄÀàĐÍ;£

Ö, ¶ " ÁúÓÐò» , öÓÃx ÷ ·ÉÐÐ¿ØÖÆÆ÷/, ËμÄÓÏ·¿ØÖÆÆ÷;£

Ö, ¶ " ÁúÓÐò» , ö¿É³ °È , ö ·½ ïðÒÆ¶ μÄ

'¥Ä¶¶ " ïðÓïï · ¿ØÖÆÆ ÷ ¡£ , ÄÀàΔίμÄÓïï · ¿ØÖÆÆ ÷ Í "³ £ÓÐÁ½ , ö »ðÈÄ , ö ° ´ Å¥¡£

Ö, 11 Öii. z00ÆÆ ÷ ÓÐ. 1/2 ðÁì; ç ÓÍÃÁ°ÍÉ²³ μ 1/2 Áì° ð; £



¿ÉÔÚ´Ë

´¿ËäËë×Ô¶¨ÒåÓÏ·¿ØÆÆ÷μÄÄû³Æ;£,ÄÄû³Æ½«³öÏÖÔÚÒÑº²×°ÔÚ¼ÆËã»úÉ¿μÄ¿ÉÓÄ¿ØÆÆ÷ÁÐ±¿ÖÐ  
¿£

Ö, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

ïÔÊ¾¼¿É·ÖÄä,øÑ;¶"Óïï·¿ØÖÆÆ÷μÄ±êÊ¶°Ä;£μ¥»÷¼¿í·ÒÔ,ü,Ä¿ØÖÆÆ÷±êÊ¶°Ä;£  
ÓÐÐ©Óïï·Ò³ÇóÓïï·¿ØÖÆÆ÷μÄ¿ØÖÆÆ÷±êÊ¶°Äî³ 1;£



ïÔÊ¾Ñ;¶`¿ØÆÆ÷±êÊ¶Â;£ÈçÒà¶²,Ã±êÊ¶Â·ÖÄäÓ¶·¿ØÆÆ÷£¬ÇëÔÚ;°Ó¶·¿ØÆÆ÷;±ÁÐ±íÖÐμ¥»÷  
„Ä¿ØÆÆ÷μÄÄû³Æ;£

ΆΔ³öζΈΌΆμÄÓÏ·ζØÖÆÆ÷;£

ÏÔÊ¾Öá 1 ρí Öá 2 ·½ÏðμÄÒÆ¶·¶Ï§;£ÈçÒ³ÔÚÖá 1 ρí Öá 2£"Í"³£ÊÇ X Öáρí Y  
Öá£©·½ÏðÐ£×¼ÓÏ·¿ØÖÆÆ÷μÄÒÆ¶·¶Ï§£¬Çë°'¡°Ð£×¼ÐÁÏç¡±ÇøÓðμÄÏáÊ¾¼²Ù×÷¡£

ÏÔÊ¾Öá 3 ·½ÏðμÄÒÆ¶·¶Ï§;£ÈçÒªÓÚÖá 3 ·½ÏðÐ£×¼Ó¶·¿ÖÆÆ÷μÄÒÆ¶·¶Ï§£¬Çë´;°Ð£×¼ÐÃ¶  
;±ÇøÓðμÃÏáÊ¾²Ù×÷;£

ïÔÊ¾Öá 4 ·½ïðμÄÒÆ¶·¶Ï§;£ÈçÒ³ÓÚÖá 4 ·½ïðÐ£×¼ÓÏ·¿ØÖÆÆ÷μÄÒÆ¶·¶Ï§£¬çè°´;°Ð£×¼ÐÃï  
;±ÇøÓðμÃìáÊ¾²Ù×÷;£

ïÔÊ¾Öá 5 ·½ïðμÄÒÆ¶·¶Ï§;£ÈçÒ³ÓÚÖá 5 ·½ïðÐ£×¼ÓÏ·¿ØÖÆÆ÷μÄÒÆ¶·¶Ï§£¬çè°´;°Ð£×¼ÐÃìç  
;±ÇøÓðμÃìáÊ¾²Ù×÷;£

ïÔÊ¾Öá 6 ·½ïðμÄÒÆ¶·¶Ï§;£ÈçÒ³ÓÚÖá 6 ·½ïðÐ£×¼ÓÏ·¿ØÖÆÆ÷μÄÒÆ¶·¶Ï§£¬çë°´;°Ð£×¼ÐÃï  
;±ÇøÓðμÃìáÊ¾²Ù×÷;£

ÉÏÏÃ×óÓÒÒÆ¶Ê±ÏÔÊ¾ÉÓµã (POV) Í·¿µÃÏ»ÖÃ;£ÈÇÒ³Ð£×¼ÓÏÏ·¿ØÖÆÆ÷µÃ POV Í·¿£¬Çë°  
´Ï°Ð£×¼ÐÃÏ;±ÇØÒµÃÏáÊ¾²Ù×÷;£



Ö, ¶ ÖÖ. ¿ ØÖÆÆ ÷ ÓÐ. ½ ð ¶ æ » ð ½ Å ð º å £ ¬ » ð Ê Ç, ½ ¼ Ó Á Æ µ ¶ ¶ Å µ Ä. ½ ð ¶ æ » ð ½ Å ð º å ; £ µ ¶ » ÷ ´ È ´ ð Ô È. ±  
£. ½ ð ¶ æ » ð ½ Å ð º å ½ « Ó Ú Ó Ö. Ö Ð º × × ÷ j £

μϕ»÷´Ë

´ìÒÔÐ£×¼ÔÏ·¿ØÖÆÆ÷;£Ð£×¼¹π×÷¿ÉÉèÖÄÓÏ·¿ØÖÆÆ÷μÄÖáìòÒÆ¶·¶Î§;£Èç¹ûÓÏ·¿ØÖÆÆ÷ÓÐÊÓμã  
(POV) Í·¿Ø£¬Ò²¿ÉÒÔÐ£×¼,ÄìØÕ÷;£

ÏÔÊ¾Öá 1 ρí Öá 2 ·½ÏðμÄÒÆ¶·¶Ï§;£ÈçÒ³ÓÚÖá 1 ρí Öá 2£´´³£Èç X Öáρí Y  
Öá£©·½ÏðÐ£×¼ÓÏ·¿ØÖÆÆ÷μÄÒÆ¶·¶Ï§£¬Çë°´;°Ð£×¼ÐÁÏç;±ÇøÒðμÄÏáÊ¾¼²Ù×÷;£

ïÔÊ¾Öá 3 ·½ïðμÄÒÆ¶·¶Ï§;£ÈçÒ³ÓÚÖá 3 ·½ïðÐ£×¼ÓÏ·¿ØÖÆÆ÷μÄÒÆ¶·¶Ï§£¬çë°´;°Ð£×¼ÐÃïç  
;±ÇøÓðμÃìáÊ¾²Ù×÷;£

ïÔÊ¾Öá 4 ·½ïðμÄÒÆ¶·¶¶Ï§;£ÈÇÒ³ÓÚÖá 4 ·½ïðÐ£×¼Ó¶·¿ØÖÆÆ÷μÄÒÆ¶·¶¶Ï§¬Çë°´;°Ð£×¼ÐÃ¶  
;±ÇøÓðμÃÏáÊ¾²Ù×÷;£

$$\tilde{A}^E \partial \mathbf{f} \times \frac{1}{4} \dot{U} \times = \mu \tilde{A} \dot{\zeta}_i \ddot{\sigma}^2 \frac{1}{2} \ddot{O} \dot{e}_j \mathbf{f}$$

²âÊÔÖá 1 ²í 2 ·½ÌðμÄÒÆ¶·¶Í§;£Çë³¢ÊÔμ½´²âÊÔ;ðμÄËÄ½Ç;£Èç¹úÖá 1 ²íÖá 2  
ÏÓ|²»ÖýÈ·£¬ÇëÖØÐÂÐ£×¼ÓÏ·;ØÖÆÆ÷;£

²âÊÔÖá 3 ·½ÏðμÄÒÆ¶·¶¶Ï§;εÇë³ϕÊÔÓÃÓÏ·¿ØÖÆÆ÷ÉÏμÄÖá¿ØÖÆÆ÷μ½´²âÊÔ¿ðμÄ¶²¿μ×²¿;εËç¹úÖá  
3 ÏÓ;²»ÖýË·ε-ÇëÖØÐÂÐε×¼ÓÏ·¿ØÖÆÆ÷;ε



²âÊÔÖá 4 ·½ÏðμÄÒÆ¶·¶¶Ï§;£Çë³çÊÔμ½´²âÊÔ;ðμÄ¶²;º|μ×²;£Êç¹ûÖá 4  
ÏÓ|²»ÖýÈ·£¬ÇëÖØÐÂÐ£×¼ÓÏ·;ØÖÆÆ÷;£

²âÊÔÖá 5 ·½ÏðμÄÒÆ¶·¶¶Ï§;£Çë³çÊÔμ½´²âÊÔ;ðμÄ¶²;º|μ×²;£Êç¹ûÖá 5  
ÏÓ|²»ÖýÈ·£¬ÇëÖØÐÂÐ£×¼ÓÏ·;ØÖÆÆ÷;£

²âÊÔÖá 6 ·½ÏðμÄÒÆ¶·¶¶Ï§;£Çë³çÊÔμ½´²âÊÔ;ðμÄ¶²;²¹μ×²;£Êç¹ûÖá 6  
ÏÓ|²»ÖýÈ·£-ÇëÖØÐÂÐ£×¼ÓÏ·;ØÖÆÆ÷;£

Èç¹úÓÏ·¿ØÖÆÆ÷ÓÐÊÓμã (POV) Í·¿ø£¬¬Ôð²âÊÔËÛ;£ÈçÒ²²âÊÔÊÓμã POV  
Í·¿ø£¬¬ÇëËÏÏ×óÓÒμØÒÆ¶ÏËÛ;£Èç¹úÏÏ;²»ÏýË·£¬¬ÇëÖØÐÂÐ£×¼ÓÏ·¿ØÖÆÆ÷;¡£

²âÊÔÓÏ·¿ØÖÆÆ÷μÄ°´Å¶¡£Ã¿´¹°´ÓÏ·¿ØÖÆÆ÷μÄÒ»¿ö°´Å¶¡£°´Å¶  
±àºÅμÄ·ÖÄäÓÉÓÏ·¿ØÖÆÆ÷μÄÉú²úÉìÈ·¶"¡£

Ã¸'ÐÐÐ£×¼ PO V í·¸µÄÒ»\_ö²½ÖèÖ®ºó£¬¼¼Çëµ¥»÷'Ë'!»ð°' Enter ¼Ü;£

·μ»Øμ<sup>1/2</sup>Δε×<sup>1/4</sup>γ<sup>3</sup>μÄÉÏ»<sup>2</sup><sup>1/2</sup>εμ±Ç°Öá<sup>1/2</sup>«±ε<sup>3</sup>ÖÏ´Δε×<sup>1/4</sup>×´Ï→»ð·μ»ØÒÔÇ°μÄΔε×<sup>1/4</sup>Öμ;ε

lø<sup>1</sup>ýμ±Ç°Đƒ×¼²½Öèƒ¬×ªμ½İÄÒ» , öÒªĐƒ×¼μÄ¿Ø¼p;ƒμ±Ç°Öá½«±ƒ³Öİ´Đƒ×¼×  
´İ¬»ð·μ»ØÒÔÇ°μÄĐƒ×¼Öμ;ƒ



Ã¿Ö´ÐÐÐ£×¼ POV Í·¿µÄò»\_ö²½ÖèÖ®ºó£-¶¼Çëµ¥»÷´Ë´!»ð°´ Enter ¼Ü¡£

·μ»Øμ<sup>1/2</sup>Δε×<sup>1/4</sup>γ<sup>3</sup>μÄÉÏ»<sup>2</sup><sup>1/2</sup>εμ±Ç°Öá<sup>1/2</sup>«±ε<sup>3</sup>ÖÏ´Δε×<sup>1/4</sup>×´Ï→»ð·μ»ØÒÔÇ°μÄΔε×<sup>1/4</sup>Öμ;ε

l0<sup>1</sup>ýμ±Ç°Đ£×¼²½Öè£-x²μ½íÁÒ»\_öÒ²Đ£×¼μÄ¿¼þj£μ±Ç°Öá½«±£³Öí´Đ£×¼×  
´í-»ò·μ»ØÒÔÇ°μÄĐ£×¼Öμj£

ÏÔÊ¾¼¿ÉÓÃÓÚ°²×°ÐÃÓÏÏ·μÄÇý¶¶~Æ÷¼°ÓÏÏ·¿ÉÓÃμÄ´ÃÀ¿Ö¼ä¿;£ÎÞ·¨ÔÚ¶¶ÃÖ¼μÄÇý¶¶~Æ÷ÉÏ,ü,ÃÓÏÏ·ÈùÓÃμÄ´ÃÀ¿Ö¼ä°Ù·Ö±È¿£

ÓÚËùÓÐÇý¶Æ÷Éí½«Óï·ζÉÓÃμÄ´ΑΑ\;Õ¼ä°Ù·Ö±È»¹ÔîÄ¬ÉïÖμj£

μ÷ÕúÓñ·ζÉÓÃμÄ´ÅÅλζÕ¼ä°Ù·Ö±È;£

ÏÔÊ¾¼ÓÐ¹Ø´ð¿²²ÍÊ¹ÓÃÓïÒðÁÄìµÄïèĪ, ÐÁĪçĵ£

ΑΔ³δÔÚÓëÁª»ύΆόΌÑÄÀìμΆí¬Ê±ζΈÒΌίæμÄΌíí·;£



„ÄiÄ¼p²»ÖÄÓÜä-AA

