**知识框架**

**Zhy**

**Chinese knowledge elements:**

***汉字(梳理)***

**Za**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [匝5](http://xh.5156edu.com/html3/2131.html)[杂6](http://xh.5156edu.com/html3/11417.html) [咋8](http://xh.5156edu.com/html3/5511.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Za 1 | [帀4](http://xh.5156edu.com/html3/5239.html)[沞7](http://xh.5156edu.com/html3/8326.html)[魳15](http://xh.5156edu.com/html3/21904.html) [匝5](http://xh.5156edu.com/html3/2131.html)[咂8](http://xh.5156edu.com/html3/5510.html)[鉔13](http://xh.5156edu.com/html3/19781.html)  [扎4](http://xh.5156edu.com/html3/7527.html)  [拶9](http://xh.5156edu.com/html3/7709.html)[桚10](http://xh.5156edu.com/html3/11724.html)  [臜20](http://xh.5156edu.com/html3/14183.html)[臢23](http://xh.5156edu.com/html3/14191.html) |
| Za 2 | [杂6](http://xh.5156edu.com/html3/11417.html)[雑14](http://xh.5156edu.com/html3/20760.html)[襍17](http://xh.5156edu.com/html3/16190.html)[雜18](http://xh.5156edu.com/html3/20772.html)[囃21](http://xh.5156edu.com/html3/6090.html)[雥24](http://xh.5156edu.com/html3/20780.html)  [沯9](http://xh.5156edu.com/html3/13205.html)  [砸10](http://xh.5156edu.com/html3/15481.html)[韴13](http://xh.5156edu.com/html3/21173.html)  [囋22](http://xh.5156edu.com/html3/6094.html) |
| Za 3 | [咋8](http://xh.5156edu.com/html3/5511.html) |
| ? | [乽9](http://xh.5156edu.com/html3/1731.html)[橴16](http://xh.5156edu.com/html3/12216.html) |

**Zai**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [灾7](http://xh.5156edu.com/html3/10898.html) [仔5](http://xh.5156edu.com/html3/2760.html) [在6](http://xh.5156edu.com/html3/9436.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

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| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zai 1 | [灾7](http://xh.5156edu.com/html3/10898.html)  [災7](http://xh.5156edu.com/html3/10901.html)[甾8](http://xh.5156edu.com/html3/15840.html)  [哉9](http://xh.5156edu.com/html3/5587.html)[烖10](http://xh.5156edu.com/html3/10984.html)[栽10](http://xh.5156edu.com/html3/11680.html)[渽12](http://xh.5156edu.com/html3/8801.html)[溨13](http://xh.5156edu.com/html3/8894.html)[睵14](http://xh.5156edu.com/html3/14996.html)[賳16](http://xh.5156edu.com/html3/18199.html) |
| Zai 3 | [仔5](http://xh.5156edu.com/html3/2760.html)  [宰10](http://xh.5156edu.com/html3/6275.html)  [载10](http://xh.5156edu.com/html3/10657.html)  [崽12](http://xh.5156edu.com/html3/7222.html) |
| Zai 4 | [再6](http://xh.5156edu.com/html3/2557.html)[洅9](http://xh.5156edu.com/html3/8481.html)  [扗6](http://xh.5156edu.com/html3/7557.html)[在6](http://xh.5156edu.com/html3/9436.html)  [载10](http://xh.5156edu.com/html3/10657.html)[傤12](http://xh.5156edu.com/html3/3198.html)[載13](http://xh.5156edu.com/html3/18310.html)[酨13](http://xh.5156edu.com/html3/19124.html)[儎15](http://xh.5156edu.com/html3/3297.html)  [縡16](http://xh.5156edu.com/html3/17424.html) |
| ? | [岾8](http://xh.5156edu.com/html3/7084.html) |

**Zan**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [簪18](http://xh.5156edu.com/html3/12973.html)[咱9](http://xh.5156edu.com/html3/5588.html) [攢22](http://xh.5156edu.com/html3/8209.html)[赞16](http://xh.5156edu.com/html3/10575.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **纲（四声）** | **目（汉字梳理）** | | Zan 1 | [兂4](http://xh.5156edu.com/html3/2088.html)  [糌15](http://xh.5156edu.com/html3/17017.html)  [橵16](http://xh.5156edu.com/html3/12252.html)  [篸17](http://xh.5156edu.com/html3/7395.html)[簪18](http://xh.5156edu.com/html3/12973.html)[簮18](http://xh.5156edu.com/html3/12974.html)  [鵤18](http://xh.5156edu.com/html3/21679.html)  [鐟20](http://xh.5156edu.com/html3/20185.html)[鐕20](http://xh.5156edu.com/html3/20190.html) | | Zan 2 | [咱9](http://xh.5156edu.com/html3/5588.html)  [偺11](http://xh.5156edu.com/html3/3125.html)[喒12](http://xh.5156edu.com/html3/5812.html) | | Zan 3 | [拶9](http://xh.5156edu.com/html3/7709.html)  [昝9](http://xh.5156edu.com/html3/12796.html)[揝12](http://xh.5156edu.com/html3/7954.html)  [寁11](http://xh.5156edu.com/html3/6294.html)  [撍15](http://xh.5156edu.com/html3/8117.html)[噆15](http://xh.5156edu.com/html3/5973.html)[攒19](http://xh.5156edu.com/html3/8183.html)[儹21](http://xh.5156edu.com/html3/3339.html)[攢22](http://xh.5156edu.com/html3/8209.html)[趱23](http://xh.5156edu.com/html3/19310.html)[趲26](http://xh.5156edu.com/html3/19311.html)  [儧17](http://xh.5156edu.com/html3/3314.html)[攅18](http://xh.5156edu.com/html3/8176.html) | | Zan 4 | [暂12](http://xh.5156edu.com/html3/12868.html)[暫15](http://xh.5156edu.com/html3/12930.html)  [賛15](http://xh.5156edu.com/html3/18178.html)[鄼17](http://xh.5156edu.com/html3/2482.html)[濽18](http://xh.5156edu.com/html3/9157.html)[瓉19](http://xh.5156edu.com/html3/13581.html)[讃22](http://xh.5156edu.com/html3/19051.html)  [赞16](http://xh.5156edu.com/html3/10575.html)[酂18](http://xh.5156edu.com/html3/2483.html)[贊19](http://xh.5156edu.com/html3/18220.html)[瓒20](http://xh.5156edu.com/html3/13583.html)[酇21](http://xh.5156edu.com/html3/2493.html)[囋22](http://xh.5156edu.com/html3/6094.html)[灒22](http://xh.5156edu.com/html3/9235.html)[瓚23](http://xh.5156edu.com/html3/13595.html)[禶23](http://xh.5156edu.com/html3/13115.html)[襸24](http://xh.5156edu.com/html3/16237.html)  [讚26](http://xh.5156edu.com/html3/19071.html)[饡27](http://xh.5156edu.com/html3/20523.html)  [錾16](http://xh.5156edu.com/html3/19595.html)[蹔18](http://xh.5156edu.com/html3/19483.html)[鏨19](http://xh.5156edu.com/html3/19613.html) | |
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**Zang**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [脏10](http://xh.5156edu.com/html3/13962.html) [驵8](http://xh.5156edu.com/html3/6127.html) [葬12](http://xh.5156edu.com/html3/4085.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **纲（四声）** | **目（汉字梳理）** | | Zang 1 | [匨9](http://xh.5156edu.com/html3/2145.html)  [赃10](http://xh.5156edu.com/html3/10545.html)[脏10](http://xh.5156edu.com/html3/13962.html)[賍13](http://xh.5156edu.com/html3/18159.html) [賘14](http://xh.5156edu.com/html3/18170.html)  [牂10](http://xh.5156edu.com/html3/12503.html)[羘10](http://xh.5156edu.com/html3/25565.html)  [臧14](http://xh.5156edu.com/html3/16269.html)[贓21](http://xh.5156edu.com/html3/18231.html)[贜24](http://xh.5156edu.com/html3/18239.html)  [髒21](http://xh.5156edu.com/html3/20958.html) | | Zang 3 | [驵8](http://xh.5156edu.com/html3/6127.html)[駔15](http://xh.5156edu.com/html3/21317.html) | | Zang 4 | [奘10](http://xh.5156edu.com/html3/4976.html)[弉10](http://xh.5156edu.com/html3/5097.html)  [脏10](http://xh.5156edu.com/html3/13962.html)  [塟12](http://xh.5156edu.com/html3/9691.html)[葬12](http://xh.5156edu.com/html3/4085.html)  [蔵14](http://xh.5156edu.com/html3/4287.html)[藏17](http://xh.5156edu.com/html3/4439.html)[臓18](http://xh.5156edu.com/html3/14175.html)[臟21](http://xh.5156edu.com/html3/14189.html)  [銺15](http://xh.5156edu.com/html3/19594.html) | | ? | [欌21](http://xh.5156edu.com/html3/12388.html) | |

**Zao**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [遭14](http://xh.5156edu.com/html3/4862.html)[凿12](http://xh.5156edu.com/html3/2695.html)[早6](http://xh.5156edu.com/html3/12733.html) [造10](http://xh.5156edu.com/html3/4785.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **纲（四声）** | **目（汉字梳理）** | | Zao 1 | [傮13](http://xh.5156edu.com/html3/3217.html)[遭14](http://xh.5156edu.com/html3/4862.html)[糟17](http://xh.5156edu.com/html3/17040.html)[醩18](http://xh.5156edu.com/html3/19183.html)[蹧18](http://xh.5156edu.com/html3/19485.html) | | Zao 2 | [凿12](http://xh.5156edu.com/html3/2695.html)[鑿28](http://xh.5156edu.com/html3/19624.html) | | Zao 3 | [早6](http://xh.5156edu.com/html3/12733.html)  [枣8](http://xh.5156edu.com/html3/11502.html)[棗12](http://xh.5156edu.com/html3/11865.html)  [蚤9](http://xh.5156edu.com/html3/16291.html)  [澡16](http://xh.5156edu.com/html3/9082.html)[璪17](http://xh.5156edu.com/html3/13551.html)[薻17](http://xh.5156edu.com/html3/4453.html)[藻19](http://xh.5156edu.com/html3/4510.html) | | Zao 4 | [灶7](http://xh.5156edu.com/html3/10899.html)  [皂7](http://xh.5156edu.com/html3/14236.html)[唣10](http://xh.5156edu.com/html3/5641.html)[梍11](http://xh.5156edu.com/html3/11814.html)  [皁7](http://xh.5156edu.com/html3/14237.html)[唕10](http://xh.5156edu.com/html3/5650.html)  [造10](http://xh.5156edu.com/html3/4785.html)[慥13](http://xh.5156edu.com/html3/10265.html)[艁13](http://xh.5156edu.com/html3/17699.html)[簉16](http://xh.5156edu.com/html3/17962.html)  [煰13](http://xh.5156edu.com/html3/11121.html)[喿13](http://xh.5156edu.com/html3/5886.html)[噪16](http://xh.5156edu.com/html3/6003.html)[燥17](http://xh.5156edu.com/html3/11225.html)[譟20](http://xh.5156edu.com/html3/19013.html)[趮20](http://xh.5156edu.com/html3/19307.html)[躁20](http://xh.5156edu.com/html3/19523.html)  [竃17](http://xh.5156edu.com/html3/15999.html)[竈20](http://xh.5156edu.com/html3/16003.html) | | ? | [栆9](http://xh.5156edu.com/html3/11596.html) | |

**Ze**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [则6](http://xh.5156edu.com/html3/1970.html) [仄4](http://xh.5156edu.com/html3/2707.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Ze 2 | [则6](http://xh.5156edu.com/html3/1970.html)[則9](http://xh.5156edu.com/html3/2018.html)  [沢7](http://xh.5156edu.com/html3/8327.html)  [泽8](http://xh.5156edu.com/html3/8374.html)[择8](http://xh.5156edu.com/html3/7654.html)  [泎8](http://xh.5156edu.com/html3/8401.html)[迮8](http://xh.5156edu.com/html3/4736.html)[咋8](http://xh.5156edu.com/html3/5511.html)[舴11](http://xh.5156edu.com/html3/17683.html)[笮11](http://xh.5156edu.com/html3/17786.html)[齚20](http://xh.5156edu.com/html3/22302.html)  [责8](http://xh.5156edu.com/html3/10522.html)[帻11](http://xh.5156edu.com/html3/5292.html)[啧11](http://xh.5156edu.com/html3/5725.html)[責11](http://xh.5156edu.com/html3/18119.html)[箦14](http://xh.5156edu.com/html3/10571.html)[嘖14](http://xh.5156edu.com/html3/5915.html)[嫧14](http://xh.5156edu.com/html3/6715.html)[幘14](http://xh.5156edu.com/html3/5324.html)[蔶14](http://xh.5156edu.com/html3/4320.html)[赜15](http://xh.5156edu.com/html3/10572.html)  [樍15](http://xh.5156edu.com/html3/12182.html)[歵15](http://xh.5156edu.com/html3/14225.html)[瞔16](http://xh.5156edu.com/html3/15025.html)[皟16](http://xh.5156edu.com/html3/14269.html)[簀17](http://xh.5156edu.com/html3/18200.html)[賾18](http://xh.5156edu.com/html3/18210.html)[謮18](http://xh.5156edu.com/html3/18979.html)  [啫11](http://xh.5156edu.com/html3/5762.html)[矠13](http://xh.5156edu.com/html3/14786.html)[諎15](http://xh.5156edu.com/html3/18865.html)[齰23](http://xh.5156edu.com/html3/22322.html)  [滜13](http://xh.5156edu.com/html3/8867.html)  [溭13](http://xh.5156edu.com/html3/8895.html)  [擇16](http://xh.5156edu.com/html3/8136.html)[礋18](http://xh.5156edu.com/html3/15715.html)[襗18](http://xh.5156edu.com/html3/16213.html)[蠌19](http://xh.5156edu.com/html3/16694.html)[鸅24](http://xh.5156edu.com/html3/21856.html) |
| Ze 4 | [仄4](http://xh.5156edu.com/html3/2707.html)[庂5](http://xh.5156edu.com/html3/5103.html)[汄5](http://xh.5156edu.com/html3/8233.html)[昃8](http://xh.5156edu.com/html3/12763.html)  [昗8](http://xh.5156edu.com/html3/12779.html)  [侧8](http://xh.5156edu.com/html3/2883.html)[崱12](http://xh.5156edu.com/html3/7251.html)  [捑10](http://xh.5156edu.com/html3/7793.html) |
| ? | [択7](http://xh.5156edu.com/html3/7615.html)[硳12](http://xh.5156edu.com/html3/15540.html) |

**Zei**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [贼10](http://xh.5156edu.com/html3/10546.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

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| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zei 2 | [贼10](http://xh.5156edu.com/html3/10546.html)[賊13](http://xh.5156edu.com/html3/18148.html)[蠈19](http://xh.5156edu.com/html3/16695.html)[鱡24](http://xh.5156edu.com/html3/22149.html)  [戝11](http://xh.5156edu.com/html3/10837.html)  [鲗14](http://xh.5156edu.com/html3/20558.html)[鰂20](http://xh.5156edu.com/html3/22041.html) |

**Zen**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:**  [怎9](http://xh.5156edu.com/html3/13654.html) [谮14](http://xh.5156edu.com/html3/3573.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

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| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zen 3 | [怎9](http://xh.5156edu.com/html3/13654.html) |
| Zen 4 | [谮14](http://xh.5156edu.com/html3/3573.html)[譖19](http://xh.5156edu.com/html3/18988.html) |

**Zeng**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [増14](http://xh.5156edu.com/html3/9802.html) [赠16](http://xh.5156edu.com/html3/10576.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zeng 1 | [曽11](http://xh.5156edu.com/html3/13815.html)[曾12](http://xh.5156edu.com/html3/13816.html)[増14](http://xh.5156edu.com/html3/9802.html)[鄫14](http://xh.5156edu.com/html3/2460.html)[缯15](http://xh.5156edu.com/html3/9401.html)[增15](http://xh.5156edu.com/html3/9815.html)[憎15](http://xh.5156edu.com/html3/10327.html)[橧16](http://xh.5156edu.com/html3/12217.html)[璔16](http://xh.5156edu.com/html3/13546.html)[磳17](http://xh.5156edu.com/html3/15695.html)  [矰17](http://xh.5156edu.com/html3/15759.html)[罾17](http://xh.5156edu.com/html3/15814.html)[繒18](http://xh.5156edu.com/html3/17462.html)[譄19](http://xh.5156edu.com/html3/19007.html) |
| Zeng 4 | [综11](http://xh.5156edu.com/html3/9350.html)  [锃12](http://xh.5156edu.com/html3/14633.html)[鋥15](http://xh.5156edu.com/html3/19860.html)  [缯15](http://xh.5156edu.com/html3/9401.html)[赠16](http://xh.5156edu.com/html3/10576.html)[熷16](http://xh.5156edu.com/html3/11223.html)[甑16](http://xh.5156edu.com/html3/13269.html)[贈19](http://xh.5156edu.com/html3/18221.html)[囎22](http://xh.5156edu.com/html3/6099.html)  [鬵18](http://xh.5156edu.com/html3/21279.html) |

**Zi**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [资10](http://xh.5156edu.com/html3/10549.html)[蓻14](http://xh.5156edu.com/html3/4303.html)[子3](http://xh.5156edu.com/html3/10462.html) [自6](http://xh.5156edu.com/html3/18101.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zi 1 | [仔5](http://xh.5156edu.com/html3/2760.html)[孖6](http://xh.5156edu.com/html3/10467.html)[孜7](http://xh.5156edu.com/html3/10473.html)  [吱7](http://xh.5156edu.com/html3/5452.html)  [甾8](http://xh.5156edu.com/html3/15840.html)[缁11](http://xh.5156edu.com/html3/9353.html)[崰11](http://xh.5156edu.com/html3/7207.html)[淄11](http://xh.5156edu.com/html3/8620.html)[菑11](http://xh.5156edu.com/html3/3997.html)[葘12](http://xh.5156edu.com/html3/4153.html)[湽12](http://xh.5156edu.com/html3/8802.html)[椔12](http://xh.5156edu.com/html3/11929.html)[辎12](http://xh.5156edu.com/html3/10670.html)[锱13](http://xh.5156edu.com/html3/14660.html)  [緇14](http://xh.5156edu.com/html3/17323.html)[輜15](http://xh.5156edu.com/html3/18343.html)[鲻16](http://xh.5156edu.com/html3/20585.html)[輺16](http://xh.5156edu.com/html3/18367.html)[錙16](http://xh.5156edu.com/html3/19983.html)[鍿17](http://xh.5156edu.com/html3/19989.html)[鶅19](http://xh.5156edu.com/html3/21734.html)[鯔19](http://xh.5156edu.com/html3/22009.html)  [茊8](http://xh.5156edu.com/html3/3768.html)  [茲9](http://xh.5156edu.com/html3/3829.html)[兹9](http://xh.5156edu.com/html3/2498.html)[玆10](http://xh.5156edu.com/html3/15917.html)[滋12](http://xh.5156edu.com/html3/8737.html)[嵫12](http://xh.5156edu.com/html3/7223.html)[嗞12](http://xh.5156edu.com/html3/5804.html)[孳12](http://xh.5156edu.com/html3/10495.html)[孶13](http://xh.5156edu.com/html3/10497.html)[禌13](http://xh.5156edu.com/html3/13087.html)[稵14](http://xh.5156edu.com/html3/14421.html)[镃14](http://xh.5156edu.com/html3/14681.html) [鎡17](http://xh.5156edu.com/html3/20006.html)[鰦20](http://xh.5156edu.com/html3/22070.html)  [姿9](http://xh.5156edu.com/html3/6464.html)[咨9](http://xh.5156edu.com/html3/5591.html)[资10](http://xh.5156edu.com/html3/10549.html)[栥10](http://xh.5156edu.com/html3/11729.html)[秶11](http://xh.5156edu.com/html3/14371.html)[谘11](http://xh.5156edu.com/html3/3553.html)[粢12](http://xh.5156edu.com/html3/16982.html)[資13](http://xh.5156edu.com/html3/18153.html)[諮16](http://xh.5156edu.com/html3/18904.html)[澬16](http://xh.5156edu.com/html3/9093.html)  [赀10](http://xh.5156edu.com/html3/10548.html)[姕9](http://xh.5156edu.com/html3/6469.html)[觜13](http://xh.5156edu.com/html3/18526.html)[訾13](http://xh.5156edu.com/html3/18758.html)[貲13](http://xh.5156edu.com/html3/18160.html)[龇14](http://xh.5156edu.com/html3/19570.html)[鈭14](http://xh.5156edu.com/html3/19587.html)[髭16](http://xh.5156edu.com/html3/21208.html)[頾18](http://xh.5156edu.com/html3/21139.html)[頿18](http://xh.5156edu.com/html3/21140.html)  [齜21](http://xh.5156edu.com/html3/22311.html)  [紎10](http://xh.5156edu.com/html3/17184.html)  [赼11](http://xh.5156edu.com/html3/19255.html)[趑13](http://xh.5156edu.com/html3/19274.html)[趦16](http://xh.5156edu.com/html3/19300.html)  [鄑12](http://xh.5156edu.com/html3/2419.html)  [緕14](http://xh.5156edu.com/html3/17337.html)[齍19](http://xh.5156edu.com/html3/22290.html)[纃20](http://xh.5156edu.com/html3/17501.html)  [鼒15](http://xh.5156edu.com/html3/22168.html) |
| Zi 2 | [蓻14](http://xh.5156edu.com/html3/4303.html) |
| Zi 3 | [子3](http://xh.5156edu.com/html3/10462.html)[仔5](http://xh.5156edu.com/html3/2760.html)[吇6](http://xh.5156edu.com/html3/5402.html)[杍7](http://xh.5156edu.com/html3/11467.html)[秄8](http://xh.5156edu.com/html3/14314.html)[矷8](http://xh.5156edu.com/html3/15434.html)[虸9](http://xh.5156edu.com/html3/16292.html)[耔9](http://xh.5156edu.com/html3/16902.html)[籽9](http://xh.5156edu.com/html3/16940.html)[釨11](http://xh.5156edu.com/html3/19667.html)  [姊7](http://xh.5156edu.com/html3/6382.html)[胏8](http://xh.5156edu.com/html3/13881.html)[秭9](http://xh.5156edu.com/html3/14324.html)[笫10](http://xh.5156edu.com/html3/17756.html)  [姉7](http://xh.5156edu.com/html3/6383.html)  [呰9](http://xh.5156edu.com/html3/5592.html)[茈9](http://xh.5156edu.com/html3/3775.html)[啙12](http://xh.5156edu.com/html3/5805.html)[紫12](http://xh.5156edu.com/html3/17078.html)[訾13](http://xh.5156edu.com/html3/18758.html)[訿13](http://xh.5156edu.com/html3/18802.html)  [梓11](http://xh.5156edu.com/html3/11767.html)[滓13](http://xh.5156edu.com/html3/8850.html)[榟14](http://xh.5156edu.com/html3/12112.html) |
| Zi 4 | [子3](http://xh.5156edu.com/html3/10462.html)[字6](http://xh.5156edu.com/html3/10469.html)[芓6](http://xh.5156edu.com/html3/3645.html)[茡9](http://xh.5156edu.com/html3/3859.html)[牸10](http://xh.5156edu.com/html3/12464.html)  [自6](http://xh.5156edu.com/html3/18101.html)  [荢9](http://xh.5156edu.com/html3/3856.html)  [剚10](http://xh.5156edu.com/html3/2032.html)[倳10](http://xh.5156edu.com/html3/3051.html)  [恣10](http://xh.5156edu.com/html3/13674.html)  [眦11](http://xh.5156edu.com/html3/14915.html)[眥11](http://xh.5156edu.com/html3/14916.html)[胔12](http://xh.5156edu.com/html3/17116.html)  [渍11](http://xh.5156edu.com/html3/8621.html)[漬14](http://xh.5156edu.com/html3/8931.html)  [胾12](http://xh.5156edu.com/html3/17115.html) |
| ? | [嗭13](http://xh.5156edu.com/html3/5876.html)[魸15](http://xh.5156edu.com/html3/21901.html)[鯑18](http://xh.5156edu.com/html3/21993.html) |

**Zong**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [宗8](http://xh.5156edu.com/html3/6251.html) [总9](http://xh.5156edu.com/html3/13655.html)[纵7](http://xh.5156edu.com/html3/9288.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zong 1 | [宗8](http://xh.5156edu.com/html3/6251.html)[倧10](http://xh.5156edu.com/html3/3094.html)[骔11](http://xh.5156edu.com/html3/6151.html)[综11](http://xh.5156edu.com/html3/9350.html)[腙12](http://xh.5156edu.com/html3/14033.html)[棕12](http://xh.5156edu.com/html3/11864.html)[綜14](http://xh.5156edu.com/html3/17318.html)[踪15](http://xh.5156edu.com/html3/19423.html)[鬃18](http://xh.5156edu.com/html3/21224.html)[騌18](http://xh.5156edu.com/html3/21390.html)[鯮19](http://xh.5156edu.com/html3/22033.html)  [枞8](http://xh.5156edu.com/html3/11475.html)  [堫12](http://xh.5156edu.com/html3/9720.html)[惾12](http://xh.5156edu.com/html3/10234.html)[葼12](http://xh.5156edu.com/html3/4154.html)[猣12](http://xh.5156edu.com/html3/6951.html)[嵏12](http://xh.5156edu.com/html3/7254.html)[嵕12](http://xh.5156edu.com/html3/7255.html)[椶13](http://xh.5156edu.com/html3/11973.html)[朡13](http://xh.5156edu.com/html3/14093.html)[稯14](http://xh.5156edu.com/html3/14426.html)[翪15](http://xh.5156edu.com/html3/17614.html)  [緵15](http://xh.5156edu.com/html3/17395.html)[蝬15](http://xh.5156edu.com/html3/16555.html)[繌17](http://xh.5156edu.com/html3/17447.html)[鍐17](http://xh.5156edu.com/html3/20035.html)[騣19](http://xh.5156edu.com/html3/21394.html)[鬉19](http://xh.5156edu.com/html3/21232.html)[鬷19](http://xh.5156edu.com/html3/21280.html)[鯼20](http://xh.5156edu.com/html3/22071.html)[鑁21](http://xh.5156edu.com/html3/20214.html)  [潈14](http://xh.5156edu.com/html3/8930.html)  [嵸14](http://xh.5156edu.com/html3/7281.html)[緃14](http://xh.5156edu.com/html3/17345.html)[踨15](http://xh.5156edu.com/html3/19440.html)[熧15](http://xh.5156edu.com/html3/11184.html)[磫16](http://xh.5156edu.com/html3/15672.html)[蹤18](http://xh.5156edu.com/html3/19487.html) |
| Zong 3 | [总9](http://xh.5156edu.com/html3/13655.html)[搃12](http://xh.5156edu.com/html3/7955.html)[縂15](http://xh.5156edu.com/html3/17367.html)  [倊10](http://xh.5156edu.com/html3/3093.html)[捴11](http://xh.5156edu.com/html3/7838.html)[焧12](http://xh.5156edu.com/html3/11056.html)[総14](http://xh.5156edu.com/html3/17328.html)  [偬11](http://xh.5156edu.com/html3/3117.html)[揔12](http://xh.5156edu.com/html3/7949.html)[惣12](http://xh.5156edu.com/html3/13714.html)  [傯13](http://xh.5156edu.com/html3/3213.html)[摠14](http://xh.5156edu.com/html3/8037.html)[總17](http://xh.5156edu.com/html3/17434.html)  [蓗13](http://xh.5156edu.com/html3/4246.html)  [緫15](http://xh.5156edu.com/html3/17376.html)[燪16](http://xh.5156edu.com/html3/11207.html) |
| Zong 4 | [纵7](http://xh.5156edu.com/html3/9288.html)[疭9](http://xh.5156edu.com/html3/15104.html)  [昮9](http://xh.5156edu.com/html3/12816.html)  [猔11](http://xh.5156edu.com/html3/6929.html)[碂13](http://xh.5156edu.com/html3/15572.html)[粽14](http://xh.5156edu.com/html3/17004.html)  [糉15](http://xh.5156edu.com/html3/17019.html)[糭19](http://xh.5156edu.com/html3/17053.html)  [瘲16](http://xh.5156edu.com/html3/15255.html)[縦16](http://xh.5156edu.com/html3/17414.html)[縱17](http://xh.5156edu.com/html3/17435.html)[豵18](http://xh.5156edu.com/html3/18635.html) |

**Zou**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [邹7](http://xh.5156edu.com/html3/2241.html) [走7](http://xh.5156edu.com/html3/19246.html) [奏9](http://xh.5156edu.com/html3/4970.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **纲（四声）** | **目（汉字梳理）** | | Zou 1 | [邹7](http://xh.5156edu.com/html3/2241.html)[驺8](http://xh.5156edu.com/html3/6129.html)[鄒12](http://xh.5156edu.com/html3/2412.html)[騶20](http://xh.5156edu.com/html3/21420.html)[齺25](http://xh.5156edu.com/html3/22334.html)  [陬10](http://xh.5156edu.com/html3/2338.html)[郰10](http://xh.5156edu.com/html3/2342.html)[诹10](http://xh.5156edu.com/html3/3532.html)[菆11](http://xh.5156edu.com/html3/3947.html)[掫11](http://xh.5156edu.com/html3/7855.html)[棷12](http://xh.5156edu.com/html3/11919.html)[棸12](http://xh.5156edu.com/html3/11930.html)[緅14](http://xh.5156edu.com/html3/17299.html)[箃14](http://xh.5156edu.com/html3/17895.html)[諏15](http://xh.5156edu.com/html3/18842.html)[鲰16](http://xh.5156edu.com/html3/20586.html)[黀19](http://xh.5156edu.com/html3/21540.html)[鯫19](http://xh.5156edu.com/html3/22001.html)[齱23](http://xh.5156edu.com/html3/22324.html) [鄹16](http://xh.5156edu.com/html3/2469.html) | | Zou 3 | [赱6](http://xh.5156edu.com/html3/9446.html)[走7](http://xh.5156edu.com/html3/19246.html) | | Zou 4 | [奏9](http://xh.5156edu.com/html3/4970.html)[揍12](http://xh.5156edu.com/html3/7926.html) | |

**Zu**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [租10](http://xh.5156edu.com/html3/14343.html)[足7](http://xh.5156edu.com/html3/19312.html) [阻7](http://xh.5156edu.com/html3/2242.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **拼音** | **汉字** |
| Zu 1 | [苴8](http://xh.5156edu.com/html3/3714.html)[租10](http://xh.5156edu.com/html3/14343.html)[菹11](http://xh.5156edu.com/html3/3998.html)[葅12](http://xh.5156edu.com/html3/4090.html)[蒩13](http://xh.5156edu.com/html3/4217.html) |
| Zu 2 | [卆4](http://xh.5156edu.com/html3/3357.html)  [足7](http://xh.5156edu.com/html3/19312.html)[7](http://xh.5156edu.com/html3/25613.html)[哫10](http://xh.5156edu.com/html3/5681.html)  [卒8](http://xh.5156edu.com/html3/3367.html)[崒11](http://xh.5156edu.com/html3/7181.html)[崪11](http://xh.5156edu.com/html3/7192.html)[椊12](http://xh.5156edu.com/html3/11888.html)[箤14](http://xh.5156edu.com/html3/17910.html)[踤15](http://xh.5156edu.com/html3/19429.html)  [族11](http://xh.5156edu.com/html3/10778.html)[镞16](http://xh.5156edu.com/html3/14706.html)[鏃19](http://xh.5156edu.com/html3/20110.html) |
| Zu 3 | [阻7](http://xh.5156edu.com/html3/2242.html)[诅7](http://xh.5156edu.com/html3/3475.html)[组8](http://xh.5156edu.com/html3/9306.html)[祖9](http://xh.5156edu.com/html3/13031.html)[珇9](http://xh.5156edu.com/html3/13337.html)[爼9](http://xh.5156edu.com/html3/13799.html)[俎9](http://xh.5156edu.com/html3/2726.html)[唨10](http://xh.5156edu.com/html3/5680.html)[組11](http://xh.5156edu.com/html3/17192.html)[詛12](http://xh.5156edu.com/html3/18722.html)[靻14](http://xh.5156edu.com/html3/20849.html) |
| ? | [鼡8](http://xh.5156edu.com/html3/1755.html)[乼9](http://xh.5156edu.com/html3/1732.html) |

**Zuan**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [钻10](http://xh.5156edu.com/html3/14561.html) [纂20](http://xh.5156edu.com/html3/17105.html) [攥23](http://xh.5156edu.com/html3/8215.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zuan 1 | [钻10](http://xh.5156edu.com/html3/14561.html)[鉆13](http://xh.5156edu.com/html3/19752.html)  [劗21](http://xh.5156edu.com/html3/2083.html)[躜23](http://xh.5156edu.com/html3/19542.html)[躦26](http://xh.5156edu.com/html3/19556.html)[鑽27](http://xh.5156edu.com/html3/20265.html) [鑚23](http://xh.5156edu.com/html3/20233.html) |
| Zuan 3 | [篹16](http://xh.5156edu.com/html3/17963.html)  [繤17](http://xh.5156edu.com/html3/17100.html)[纂20](http://xh.5156edu.com/html3/17105.html)  [缵19](http://xh.5156edu.com/html3/9407.html)[纘25](http://xh.5156edu.com/html3/17518.html)[籫25](http://xh.5156edu.com/html3/18096.html) [纉21](http://xh.5156edu.com/html3/17510.html) |
| Zuan 4 | [钻10](http://xh.5156edu.com/html3/14561.html)  [赚14](http://xh.5156edu.com/html3/10569.html)  [攥23](http://xh.5156edu.com/html3/8215.html) |

**Zui**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [咀8](http://xh.5156edu.com/html3/5492.html) [嘴16](http://xh.5156edu.com/html3/6005.html) [最12](http://xh.5156edu.com/html3/13818.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **纲（四声）** | **目（汉字梳理）** | | Zui 1 | [咀8](http://xh.5156edu.com/html3/5492.html) [嗺14](http://xh.5156edu.com/html3/5934.html)  [厜10](http://xh.5156edu.com/html3/1903.html)  [脧11](http://xh.5156edu.com/html3/13997.html)  [樶16](http://xh.5156edu.com/html3/12265.html)  [蟕19](http://xh.5156edu.com/html3/16684.html)  [纗24](http://xh.5156edu.com/html3/17517.html) | | Zui 3 | [觜13](http://xh.5156edu.com/html3/18526.html)[嘴16](http://xh.5156edu.com/html3/6005.html)  [嶊14](http://xh.5156edu.com/html3/7303.html)  [噿17](http://xh.5156edu.com/html3/6043.html)[璻18](http://xh.5156edu.com/html3/13574.html) | | Zui 4 | [栬10](http://xh.5156edu.com/html3/11730.html)  [冣10](http://xh.5156edu.com/html3/2678.html)[鋷16](http://xh.5156edu.com/html3/19970.html)  [絊11](http://xh.5156edu.com/html3/17217.html)  [酔11](http://xh.5156edu.com/html3/19105.html) [酻14](http://xh.5156edu.com/html3/19136.html)  [晬12](http://xh.5156edu.com/html3/12870.html)[祽12](http://xh.5156edu.com/html3/13070.html)[稡13](http://xh.5156edu.com/html3/14404.html)[醉15](http://xh.5156edu.com/html3/19147.html)[錊16](http://xh.5156edu.com/html3/19985.html)  [最12](http://xh.5156edu.com/html3/13818.html)[蕞15](http://xh.5156edu.com/html3/4339.html)  [罪13](http://xh.5156edu.com/html3/15795.html)[嶵16](http://xh.5156edu.com/html3/7341.html)[檌17](http://xh.5156edu.com/html3/12305.html)  [辠13](http://xh.5156edu.com/html3/18644.html)  [槜14](http://xh.5156edu.com/html3/12110.html)[檇16](http://xh.5156edu.com/html3/12205.html) | |
| |  | | --- | |  | |

**Zun**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [尊12](http://xh.5156edu.com/html3/4921.html) [撙15](http://xh.5156edu.com/html3/8089.html) [捘10](http://xh.5156edu.com/html3/7766.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zun 1 | [尊12](http://xh.5156edu.com/html3/4921.html)[嶟15](http://xh.5156edu.com/html3/7308.html)[遵15](http://xh.5156edu.com/html3/4875.html)[樽16](http://xh.5156edu.com/html3/12206.html)[罇18](http://xh.5156edu.com/html3/16841.html)[繜18](http://xh.5156edu.com/html3/17477.html)[鐏20](http://xh.5156edu.com/html3/20192.html)[鳟20](http://xh.5156edu.com/html3/20624.html)[鷷23](http://xh.5156edu.com/html3/21836.html)[鱒23](http://xh.5156edu.com/html3/22124.html) |
| Zun 3 | [僔14](http://xh.5156edu.com/html3/3245.html)[噂15](http://xh.5156edu.com/html3/5959.html)[撙15](http://xh.5156edu.com/html3/8089.html)[譐19](http://xh.5156edu.com/html3/19010.html) |
| Zun 4 | [捘10](http://xh.5156edu.com/html3/7766.html)  [銌14](http://xh.5156edu.com/html3/19848.html) |

**Zuo**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [作7](http://xh.5156edu.com/html3/2859.html)[琢12](http://xh.5156edu.com/html3/13432.html) [左5](http://xh.5156edu.com/html3/5016.html) [坐7](http://xh.5156edu.com/html3/9466.html)

**号表法no.indicator:** 1 2 3 4

**全家福family photo:**

|  |  |
| --- | --- |
| **纲（四声）** | **目（汉字梳理）** |
| Zuo 1 | [作7](http://xh.5156edu.com/html3/2859.html)  [嘬15](http://xh.5156edu.com/html3/5939.html)[穝17](http://xh.5156edu.com/html3/14467.html) |
| Zuo 2 | [昨9](http://xh.5156edu.com/html3/12799.html)[莋10](http://xh.5156edu.com/html3/3910.html)[秨10](http://xh.5156edu.com/html3/14356.html)[笮11](http://xh.5156edu.com/html3/17786.html)[筰13](http://xh.5156edu.com/html3/17854.html)[鈼13](http://xh.5156edu.com/html3/19786.html)  [捽11](http://xh.5156edu.com/html3/7839.html)  [琢12](http://xh.5156edu.com/html3/13432.html)  [稓13](http://xh.5156edu.com/html3/14409.html) |
| Zuo 3 | [左5](http://xh.5156edu.com/html3/5016.html)[佐7](http://xh.5156edu.com/html3/2860.html)  [撮15](http://xh.5156edu.com/html3/8073.html)[繓18](http://xh.5156edu.com/html3/17478.html) |
| Zuo 4 | [阼7](http://xh.5156edu.com/html3/2243.html)[作7](http://xh.5156edu.com/html3/2859.html)[怍8](http://xh.5156edu.com/html3/10064.html)[岞8](http://xh.5156edu.com/html3/7080.html)[岝8](http://xh.5156edu.com/html3/7100.html)[祚9](http://xh.5156edu.com/html3/13032.html)[胙9](http://xh.5156edu.com/html3/13915.html)[葃12](http://xh.5156edu.com/html3/4151.html)[葄12](http://xh.5156edu.com/html3/4155.html)[飵13](http://xh.5156edu.com/html3/20424.html)  [坐7](http://xh.5156edu.com/html3/9466.html)[侳9](http://xh.5156edu.com/html3/3011.html)[座10](http://xh.5156edu.com/html3/5142.html)[唑10](http://xh.5156edu.com/html3/5649.html)  [袏10](http://xh.5156edu.com/html3/16073.html)  [做11](http://xh.5156edu.com/html3/3120.html)  [糳26](http://xh.5156edu.com/html3/17065.html) |
| ? | [咗8](http://xh.5156edu.com/html3/5540.html) |

**Chinese-western knowledge fusion:**

**汉-英(对应)**

**Za**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [匝5](http://xh.5156edu.com/html3/2131.html)[杂6](http://xh.5156edu.com/html3/11417.html) [咋8](http://xh.5156edu.com/html3/5511.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Za 1

匝circle, turn, circumference

匝道ramp

匝数number of turns (windings)

匝数比turns ratio

匝间短路turn-to-turn short circuit

Za 2

杂varied, miscellaneous，to mingle, to mix

杂草rank grass

杂凑表hash table 散列表 哈希表

杂烩，杂凑omnium-gatherum

杂货铺grocery

杂乱hugger-mugger, disarray, promiscuous

杂技 (do) acrobatics

acrobatic contortions杂技扭曲

杂技演员circus acrobat

杂志中的插页centrefold

杂种mongrel

杂环的heterocyclic

heterocyclic amines杂环胺(HCA)

compound 杂环化合物

polymer 杂环聚合物，杂环高分子

HAAs--- heterocyclic aromatic amines

Diet is an important factor in global variation of human cancer. HAAs are mutagenic/carcinogenic compounds致癌致突变化合物 formed at low levels via the Maillard reaction美拉德反应 and a free radical mechanism during cooking of animal tissue at high temperature.

THF--- tetrahydrofuran氧杂环戊烷，四氢呋喃

Za 3

咋how, why, to bite into

不咋好not very good

**Zai**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [灾7](http://xh.5156edu.com/html3/10898.html) [仔5](http://xh.5156edu.com/html3/2760.html) [在6](http://xh.5156edu.com/html3/9436.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zai 1

栽to plant

栽入pill-sized electrodes implanted in his brain

灾祸scourge, plague

灾难calamity, cataclysm, meltdown, woe

(使)灾难化to catastrophize

灾难性的it is catastrophic

灾难性的动乱cataclysmic upheaval

灾难性急剧下降slippery slope

甾 (上方的“三折”代表甾激素有三个侧链---C10两个角甲基，C13两个角甲基，C17一个支链:羟(qiang3)基，羰(tang1)基；下方的“田”代表从左到右A,B,C,D四个环，其中A，B，C环为六元环，D为五元环)。基本母核有雌烷(estrane)，雄烷(androstane)，孕烷(pregnane)三种.

甾体sterides, steroids

甾体总皂苷steroidal saponins(含有27个碳原子的 螺甾醇screw sterol 或呋甾醇cefuroxime sterol，极性强的大分子化合物。自然界中下列植物均含：百合科lily family-- chlorophytum comosum水培吊篮，malayense大叶吊篮葱属，sorghum arundinaceum芦苇高粱；allium，龙舌属agave l. ，知母rhizoma anemarrheneae，天门冬radix asparagi，麦门冬tuber of dwarf lilyturf，七叶一支花paris polyphylla，穿山龙rhizoma dioscoreae, 盾叶薯蓣peltate rhizome)

皂苷，皂素saponin ( 下列植物属中含有：C. arundinaceum, C. borivilianum, C. comosum,

C. malayense）

afronontoside新甾体皂苷

dioscin薯蓣皂苷

sterosaponin海星皂苷

triterpene sapnin三萜(tie)皂苷

皂苷元sapogenin:

diogenin 薯蓣皂苷元

hecogenin 海柯皂苷元

tigogenin 替告皂苷元

yamogenin约莫皂苷元

甾类化合物steroid hormone

Zai 3

仔young animal or fowl

载 -borne:

Air-borne空中运输的，空气中带有的

Aircraft-borne机载的

Missile-borne导弹上带着的

Sea-borne海运的，水中带有的

Satellite-borne卫星上带着的

Space-borne太空运载的

Vehicle-borne车载的

载to load

download下载

upload上载, 上传

payload有效载荷

载荷理论load theory

载氢弹的导弹已准备就绪H-bomb missile-ready

载人航天飞行manned space flight

苏联(俄罗斯) at 1957,10,04, USSR launched the human’s first “Sputnik” spacecraft into space.

At 1961,04,12 “East-1” cosmocraft carried Gagarin cosmonaut into space.

Russian Mir(和平号) space station

美国at 1961,05,05 “freedom 7, project Mercury” spacecraft carried Lan Shepard jr astronaut the first US astronaut into space.

17 developed countries possess the international space station with US as its leader

中国(中国所有不载人和载人飞船都由长征二F 运载火箭从酒泉发射升空，任务完成后，降落在内蒙古的四子王旗All China’s spacecrafts are launched by CZ-2F carrier rockets from 酒泉 launching site, land at 四子王旗in Inner Mongolia province after mission is completed)

神舟-1 launched at 1999,20,06,30’,07’’

神舟-2 launched at 2001,01,10,00’,03’’

神舟-3 launched at 2002,03,25,22,15’ 分为轨道舱orbitor,返回舱return capsule, 推进舱thrust capsule三部分

神舟-4 launched at 2022,12,30,00,40’

（以上4次加上神舟-8均为unmanned spacecraft）

神舟-5 launched at 2003,10,15,09; hangtianaut:杨利伟

神舟-6 launched at 2005,10,12,09; hangtianauts:费俊龙聂海胜

神舟-7 launched at 2008,09,28,17,37’; hangtianauts:

翟志刚，刘伯明，景海鹏

神舟-8 launched at 2011,11,01,05,58’10’’; unmanned space craft docked with 天宫一号(2011,09,29 up;2016,03,16 down)

神舟-9 launched at 2012,06,29,10,03’; hangtianauts:

景海鹏,刘旺，刘洋(女)docked with天宫一号

神舟-10 launched at 2013,06,11,17,38’,02.666; hangtianauts:聂海胜, 张晓光，王亚平（女）

docked with天宫一号

神舟-11 launched at 2016,10,17,07,30’,31’’; hangtianauts:

景海鹏, 陈冬 entered into 天宫二号(2016,09,15 up;2019,07,19 down)

神舟-12 launched at 2021,06,17,09,22’; hangtianauts:

聂海胜，刘伯明，杨洪波 to dock with and stay at天宫 space station for 3 months

载体carrier, isotopic carrier, supporter, transporter, vector

宰客(人)to rip sb off

(选择性)宰杀to cull

Zai 4

在本质上at heart在内心

在场者attendee

在船(车,飞机)上aboard, onboard

在航线上on course

在交易的基础上on a quid pro quo basis

在起作用at play

在屋内on prem在屋外off prem第三方3rd party

在逃on the run

在体内in vitro

在位总统incumbent or sitting president

在线聊天live chat

在远处afield

在职训练on-the-job training

在...之前ahead of...

在最坏的情况下in the worst case scenario

再again

to backlist再版库存目录

(紧张情况)再次爆发Tensions flare anew.

再次担任某角色to reprise one’s role

再加工，再培训to retool

The transportation rocket has undergone a thorough retooling.

再进行技术培训to reskill

to reskill American workers在培训美国工人

再来一次(个) encore

再入伍to reenlist再从军

再三强调到彻底了解hammer home

再生regeneration

再生能源renewable energy

再体验to relive 复活

再走老路to re-tread the old path of...

**Zan**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [簪18](http://xh.5156edu.com/html3/12973.html)[咱9](http://xh.5156edu.com/html3/5588.html) [攢22](http://xh.5156edu.com/html3/8209.html)[赞16](http://xh.5156edu.com/html3/10575.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zan 1

簪hiarpin

Zan 2

咱we, us

Zan 3

攒to collect, to assemble, to save (money)

Zan 4

赞成 pro-: vs con- or anti-

in favor of, to favor, pro-free trade, pro-globalization

(很)赞成to approve strongly

赞成与反对for sth and against sth

赞美to laud, to extol, encomium

赞美好事to extol the good deeds

赞赏to wow

赞同对话to endorse a dialogue

赞同干某事to favor doing sth

赞许approbation认可

Verbal approbation 口头认可

赞扬words of praise

赞誉acclaim

global acclaim全球赞誉

赞助to patron, patronage, sponsor

赞助人patron

暂缓遣返青年入境者DACA---defrred action of children arrivals

暂停to be put in hold, lull, moratorium, on hold, to pause

暂停活动on an operational pause

暂时for the time being

timeout暂时休息

during a layover短暂停留时间

暂时辞退令 “stand-down” order

暂时搁置to put on ice

暂时平静lull

暂停to suspend, moratorium

to put book tour on hold暂停图书之旅

**Zang**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [脏10](http://xh.5156edu.com/html3/13962.html) [驵8](http://xh.5156edu.com/html3/6127.html) [葬12](http://xh.5156edu.com/html3/4085.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zang 1

赃dirty, messy

脏话profanity, curse words, swear words

赃物loot, booty

to blow the loot on drinking把赃物挥霍在喝酒上

脏兮兮的dirty

dirty park脏兮兮的公园

Zang 3

驵Strong horse，a brober(经纪人) for horse trade

Zang 4

葬礼funeral

to attend one’s funeral参加某人的葬礼

葬送前程to ruin or wreck one’s career

**Zao**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [遭14](http://xh.5156edu.com/html3/4862.html)[凿12](http://xh.5156edu.com/html3/2695.html)[早6](http://xh.5156edu.com/html3/12733.html) [造10](http://xh.5156edu.com/html3/4785.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zao 1

遭排斥out in the cold

遭软禁under house rest, confined to one’s home

遭受to reel from

遭受打击to take a hit

遭受同样的命运to suffer the same fate

遭受危机打击的国家crisis-hit nation

糟糕的工作lousy job

糟糕的评级abysmal rating

糟糕的数字abysmal numbers

糟粕scum

糟蹋to spoil, to botch

糟透的社会dystopia vs utopia

Zao 2

凿chisel

Zao 3

早(就该办了)forever ago

早班morning shift

早餐 (饔yong1) breakfast

早产premature birth

早就承诺的long-promised

早鸟优惠early bird discount

group discount团体优惠

早期early stage

早上干活的人(上午干活的人)morning people

evening people晚上干活的人

早熟的precocious

bluegrass早熟禾属植物

早泄premature ejaculation

早于 to predate

枣date, jujube

jujube seed枣仁

藻algae, aquatic plants

grypania卷曲藻

Zao 4

造成to engender, to spawn, to contribute to

造成世界末日 to wreak the apocalypse

造成损失to take a toll

造成严重破坏to wreak havoc

造福全人类to bless all humankind

造了一堵人墙to create a human wall

造势to build momentum

造一个喷泉to create a fountain

造影剂contrast agent

噪声特征noise signature

**Ze**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [则6](http://xh.5156edu.com/html3/1970.html) [仄4](http://xh.5156edu.com/html3/2707.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Ze 2

法则rule, law

责备某人to scold sb

责备受害者victim-blaming

责怪他人to play the blame game

责骂to lambast, to rail against, to chide

责难某人to decry, to chide sb, to excorate

责任responsibility, liability

legal liability法律责任

责任编辑commissioning editor

责任在你The onus is on you.

(把)责任推给to ascribe blame for...

责无旁贷indispensability, no shirking the responsibility,

Buck stops.

There has to be accountability必须有问责制

Ze 4

仄声oblique tone, uneven tone

**Zei**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [贼10](http://xh.5156edu.com/html3/10546.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zei 2

贼喊抓贼The shameless trick of a thief crying out “stop thief”.

**Zen**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:**  [怎9](http://xh.5156edu.com/html3/13654.html) [谮14](http://xh.5156edu.com/html3/3573.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zen 3

怎办how to do

Zen 4

谮言slander, to vilify

**Zeng**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [増14](http://xh.5156edu.com/html3/9802.html) [赠16](http://xh.5156edu.com/html3/10576.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zeng 1

增稠剂thickener

增兵military surge in capacity

增补，增选，指派，团结，借鉴co-opted

增材制造additive manufacturing

增加to rev

to raise the risk of...增加了危险性

uptick in import 增加进口

增加能量to boost energy

增加商务盗窃to step up the theft of trade secret

增加实力to pick up steam

增加收入to raise revenues

增加税收to boost tax revenues

增加现金奖励to pump up cash reward

增加新会员to co-opt one’s party

增加智慧to grow wisdom

增强免疫系统to prime the immune system

增强器augmentor

augmented reality增强现实技术（新的地球仪）

EGS---enhanced geothermal system增强型地热系统

增生Hyperplasia：

Hyperplasia of prostate前列腺增生

hyperostosis骨质增生

增压器supercharger

增长迅速的burgeoning

增长议题growth agenda

增长 与 衰减growth vs decay

指数增长 与 指数衰减的公式

formula of exponential growth and exponential decay:

y(t) = a × ekt

Where **y(t)** = value at time "t"  
**a** = value at the start  
**k** = rate of growth (when >0) or decay (when <0)  
**t** = time

**Exponential growth 指数增长**

### Example: 2 months ago you had 3 mice, you now have 18.

|  |  |
| --- | --- |
| IMG_256 | Assuming the growth continues like that   * What is the "k" value? * How many mice 2 Months from now? * How many mice 1 Year from now? |

Start with the formula:

y(t) = a × ekt

We know **a=3** mice, **t=2** months, and right now **y(2)=18** mice:

18 = 3 × e2k

Now some algebra to solve for **k**:

Divide both sides by 3:6 = e2k

Take the natural logarithm of both sides:ln(6) = ln(e2k)

**ln(ex)=x**, so:ln(6) = 2k

Swap sides:2k = ln(6)

Divide by 2:**k = ln(6)/2**

*Notes:*

* *The step where we used* ***ln(ex)=x*** *is explained at [Exponents and Logarithms](https://www.mathsisfun.com/algebra/exponents-logarithms.html)*.
* *we could calculate* ***k ≈ 0.896****, but it is best to keep it as* ***k = ln(6)/2*** *until we do our final calculations.*

We can now put **k = ln(6)/2** into our formula from before:

y(t) = 3 e(ln(6)/2)t

Now let's calculate the population in 2 more months (at **t=4** months):

y(**4**) = 3 e(ln(6)/2)×**4** = 108

And in 1 year from now (**t=14** months):

y(**14**) = 3 e(ln(6)/2)×**14** = 839,808

That's a lot of mice! I hope you will be feeding them properly.

*Notes:*

* *The step where we used* ***ln(ex)=x*** *is explained at [Exponents and Logarithms](https://www.mathsisfun.com/algebra/exponents-logarithms.html)*.
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## Exponential Decay指数衰减

Some things "decay" (get smaller) exponentially.

### Example: Atmospheric pressure (the pressure of air around you) decreases as you go higher.

It decreases about 12% for every 1000 m: an **exponential decay**.

The pressure at sea level is about 1013 hPa (depending on weather).



* Write the formula (with its "k" value),
* Find the pressure on the roof of the Empire State Building (381 m),
* and at the top of Mount Everest (8848 m)

Start with the formula:

y(t) = a × ekt

We know

* **a** (the pressure at sea level) = **1013** hPa
* **t** is in meters (distance, not time, but the formula still works)
* **y(1000)** is a 12% reduction on 1013 hPa = **891.44** hPa

So:

891.44 = 1013 ek×1000

Now some algebra to solve for **k**:

Divide both sides by 1013:0.88 = e1000k

Take the natural logarithm of both sides:ln(0.88) = ln(e1000k)

**ln(ex)=x**, so:ln(0.88) = 1000k

Swap sides:1000k = ln(0.88)

Divide by 1000:**k = ln(0.88)/1000**

Now we know "k" we can write:

y(t) = 1013 e(ln(0.88)/1000)×t

And finally we can calculate the pressure at **381 m**, and at **8848 m**:

y(**381**) = 1013 e(ln(0.88)/1000)×**381** = 965 hPa

y(**8848**) = 1013 e(ln(0.88)/1000)×**8848** = 327 hPa

(In fact pressures at Mount Everest are around 337 hPa ... good calculations!)

## Half Life半衰期

The "half life" is how long it takes for a value to halve with exponential decay.

Commonly used with radioactive decay, but it has many other applications!

### Example: The half-life of caffeine in your body is about 6 hours. If you had 1 cup of coffee 9 hours ago how much is left in your system?



Start with the formula:

y(t) = a × ekt

We know:

* **a** (the starting dose) = **1** cup of coffee!
* **t** is in hours
* at **y(6)** we have a 50% reduction (because 6 is the half life)

So:

0.5 = 1 cup × e**6**k

Now some algebra to solve for **k**:

Take the natural logarithm of both sides:ln(0.5) = ln(e6k)

**ln(ex)=x**, so:ln(0.5) = 6k

Swap sides:6k = ln(0.5)

Divide by 6:**k = ln(0.5)/6**

Now we can write:

y(t) = 1 e(ln(0.5)/6)×t

In **6 hours:**

y(**6**) = 1 e(ln(0.5)/6)×**6** = 0.5

Which is correct as 6 hours is the half life

And in **9 hours:**

y(**9**) = 1 e(ln(0.5)/6)×**9** = 0.35

After **9** hours the amount left in your system is **about 0.35** of the original amount. Have a nice sleep :)

(货币)增值appreciation of money

增值效益value-added benefit

VAT--- value-added tax增值税

增殖proliferate, proliferation

cell proliferation细胞增殖

PCNA--- proliferating cell nuclear antigen增殖细胞核抗原

Zeng 4

赠to present

赠养费alimony

(捐)赠to donate

(遗)赠to leave as a gift

**Zi**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [资10](http://xh.5156edu.com/html3/10549.html)[蓻14](http://xh.5156edu.com/html3/4303.html)[子3](http://xh.5156edu.com/html3/10462.html) [自6](http://xh.5156edu.com/html3/18101.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zi 1

资产asset, deep pocket

资产负债表balance sheet

资产与债务assets and debts

资本capital

(靠残酷剥削起家的)资本家robber baron

资本外流capital exodus, capital outflow

资产assets

haven asset = gold避险资产

balance sheet资产负债对照表

资格qualification

I am not qualified to answer your questions.

To have the qualification

资金fund, money, coffer

资金困境money woes

资历不足的ill-equipped

资深编辑editor-at-large

资深会员fellow member

资源resources

URL--- uniform resource locator统一资源定位符=网页地址

格式：

[file:///](File://)本地计算机文件

[FTP://通过文件传输协议(file](FTP://文件传输协议file) transfer protocol)访问该资源

Gopher去找，internet gopher protocol信息查找系统

[HTTP://通过超级文本传输协议(hypertext](HTTP://通过超级文本传输协议hypertext) transmission protocol)访问该资源

<HTTPS://通过HTTP> 安全(secure)访问该资源

mailto:通过简单报文传输协议(SMTP--- simple message transfer protocol)访问该资源

MMS://多媒体短信服务(multimedia messaging service)

通过视窗媒体播放机(windows media player)播放该资源

ed2k://电驴(eDonkey), 下载链接

Flashget://网际快车，下载工具

Thunderbolt://迅雷，下载工具

news通过网络新闻传输协议(NNTP--- network news transfer protocol)访问该资源

资源缺乏的国家resource-starved country

trust-worthy resources可信的资源

资深人士senior people

资助私人保险to substidize private insurance

资助网patronage network

资助者funder

姿position, posture, gesture：

Standing position站姿

Sitting position坐姿

Prone position卧姿：

Prone position or posture俯卧姿

recumbent gesture横卧

Side position侧卧姿

Supine posture仰卧姿

滋生to breed

breeding ground滋生地

terrorism breeds terrorism恐怖滋生恐怖

Zi 2

蓻vegetation appearance

Zi 3

子 -on:

axion轴粒子

baryon重子

skyrmion--- superposition of baryons and resonance states

boson玻色子 (整数自旋粒子)

electron电子

fermion 费米子(半整数自旋粒子)

gluon胶子

hadron强子

ion离子

lepton轻子

leptoquark--- any of a class of hypothetical bosons that would decay into lepton and a quark

meson介子

epsilon meson

muon渺子，轻子，

neutrino中微子

neutron中子

phonon声子

microcavity polariton微腔极化声子

Photon 光子

optical photon光量子

microwave photon微波光子

Plasmon等离子体振子

Pion π介子

Proton质子(正半奇数1/2，3/2 etc)

anti-proton反质子

tachyon速子，快子，超光速粒子

eta tachyon

Lambda tachyon

omega tachyon

weakon弱子

Supercharge超负荷, denoted by the symbol Q, is an operator算符 which transforms bosons into fermions or vice versa. Since it changes a particle with spin one-half to a particle with spin one or zero, the supercharge itself is a spinor旋子 that carries one half unit of spin.

夸克quark--- subatomic particles with 6 flavors:

上夸克up quark

下夸克down quark

顶夸克top quark

底夸克bottom quark

奇夸克strange quark

粲夸克charm quark

MeV兆电子伏(数值有别)

顺便看看物质的 “态”：

气态gas state

液态liquid state

固态solid state

本征态eigen state

等离子plasma

玻色-爱因斯坦凝聚态bos-eistein condensate

费米凝聚态fermionic condensate

子 -cius = philosopher:

Confucius孔子

Mencius孟子

Mocius 墨子

子宫uterus

vervix子宫颈

子母弹submunition

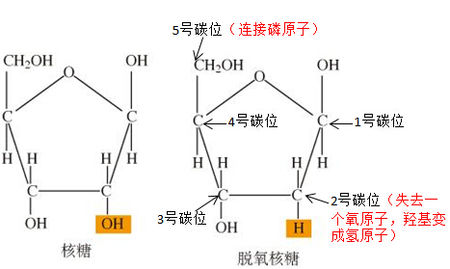
submunition dispenser子母弹布撒器

子女children

godchildren教内子女

子孙progeny

子位碳alpha-carbon Cα

点击查看源网页[](https://www.baidu.com/link?url=JRty1Fap6fKH2PRGi1L2LI7Ybxbu7bWcYQxNJfXUsQNv2GGmLmwnDVDIPaTtogu_iddjR1RHTA1eGHZqUzznXJPRsx2Ouq2SG7rRVsuR-L2WDwkhy07XPkpDiuoGmbauFmeQI2FrCIXP-b0yKPuIA-lG6heUcd0cUSD6J3p39OMmBkEooJoeDsSATdR7Rs7HwiZXohax4jEhayN652n_pofE6z_fNujyWsxBCFM7cgvEQhVveHQMALVnwHW1_D5dXy5UQZV4krypkIuQbgiEByPna67Jwk8O-tWvWBAQq0wqmLFmA-vLNSGufwkMIWOYoraqN-RjwrIovSpH-1Dy1b8qB89v6kbvC2bhmJIRGNOAfrVSsxcOgfFKXnEUZPDXz9kri8kGj9vMNGuqeag42Q6bSYNxd2Q_Yr5R0rn20m4Edv0D6Os0FWORYZ4jKgRvyN4DzbSdvJpqfyAHyfiAMHfnreS2Mrz3-GBQS-sOV85SNQrCT1MuJcaOCZdyQljJ_MGMENyrXKiQq8ZbvljVbXXLRMktbdukYrqmvq6won6o-tGyL-DgIEapMPh3uAGr4woV8a1xTBAL-mWJBZ20FsIsizvJFrfql4WUw3Hr3GcMvpiiMUigIUQWor9G4pEQNj8RRZEpCqbrPw8iMrVw1SbONZ80DgVxzgozjWKoQtGpWuBmN2_1ogKFUmZMHmuKCZpIMxc6meIfM0OfPORrna%26timg=https:/ss0.bdstatic.com/94oJfD_bAAcT8t7mm9GUKT-xh_/timg?image%26quality=100%26size=b4000_4000%26sec=1577225449%26di=51860708c7e4c818f8e35c035dfdd025%26src=http:/b.hiphotos.baidu.com/zhidao/wh=450,600/sign=41b044ee57e736d15846840cae6063f4/6c224f4a20a44623f049af509b22720e0cf3d705.jpg%26click_t=1577226377058%26s_info=842_346%26wd=%26eqid=e281880c000fdb90000000065e028ce8)

子痫前期preeclampsia

紫斑症idiopathic thrombocytopenic purpura (ITP)

紫荆花bauhinia flower

紫禁城的外门outer gate of forbidden city

紫石英号事件 HMS Amethyst incident, which happened in April 1949 at Yangtze river. The British challenger英国挑衅者 was damaged by the young PLA artillery. Companion warships伴随舰:

HMS Consort伴侣号

HMS London伦敦号

HMS Black swan黑天鹅号

紫外线UV--- ultra violet

UVA--- 315nm-400nm

UVB--- 280nm-315nm

UVC--- 200nm-280nm “日盲”波段

Zi 4

自闭儿童autistic children

自变量argument, independent variable vs. Dependent variable

自贬self-deprecating

自嘲self-derision

自残self-harm, to self-harm自伤，

自称的self-proclaimed, self-styled(自封的)

自吹pretense

自存档self-archiving

自订规划house rule

自动 auto-

auto-complete自动完成

auto-complete function自动完成功能

auto-capitalize自动大写

auto-correct 自动纠正

auto-delete自动删除

auto-encoder自动编码器

to auto-generate自动生成

自动餐厅cafeteria

自动车AV---autonomous vehicle

自动出纳机ATM---automatic teller machine

自动反应的knee-jerk

自动防故障的fail-safe

自动分割auto-segment

自动更新autorenewal

自动纠正autocorrect

自动驾驶autopilot

自动收费系统automated fares collection system

自动售货机vending machine

自动体外除颤器AED---automated external defibrillator

自动洗衣店launderette

自发性spontaneity, idiopathy

idiopathy sudden deafness自发性突然耳聋

自封的圣人 self-styled holy man

self-declared interim president自封为临时总统

自负, 自我中心massive ego, egotism, self-admiration

自给自足的,经济独立的autarkic

autarkic war-footing自给自足的战争状态

自画像self-portrait

自毁self-destruct

自己动手做DIY---do it yourself

自己掏腰包out of one’s own pocket

自己造成的self-inflicted

自掘坟墓to dig one’s own grave

自夸的much-vaunted，boastful

自来水tap water

自怜的self-pitying

自律self-limiting

自满complacency

in a complacent state处于自满状态

自酿酒to homebrew

自鸣得意smug自以为是， 沾沾自喜

自拍照(mobile phone) selfie

selfie drone自拍无人机 (drone x pro)

自欺欺人self-deluded

自然(泰勒斯发明的字) nature (coined by Thales) in lieu of god:

natural number自然数=可数的数

e=2.718281828459 自然常数

compound interest复利

biological reproduction生物繁殖

logarithmic spiral 对数螺线

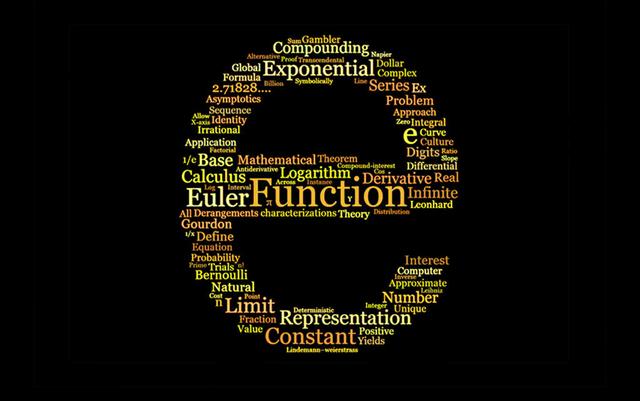
equiangular spiral等角螺线

tropical depression热带低气压

pearly nautilus鹦鹉螺外壳

polar coordinates极坐标

spiral galaxy, whirlpool galaxy旋涡星系



# e = 2.71828183 ?

The e constant can be approximately calculated by using the infinite series:

IMG_256

IMG_257

  =  1 +  1 +    0.5  +  0.166667  + ...

  =  2.71828182...

  ≈  2.71828183

### e constant calculation stages

|  |  |  |
| --- | --- | --- |
| **Calculation stage** | **Additional sequence value** | **Accumulated value** |
| 1 | 1.00000000 | 1.00000000 |
| 2 | 1.00000000 | 2.00000000 |
| 3 | 0.50000000 | 2.50000000 |
| 4 | 0.16666667 | 2.66666667 |
| 5 | 0.04166667 | 2.70833333 |
| 6 | 0.00833333 | 2.71666667 |
| 7 | 0.00019841 | 2.71825397 |
| 8 | 0.00002480 | 2.71827877 |
| 9 | 0.00000276 | 2.71821526 |
| 10 | 0.00000028 | 2.71828180 |
| 11 | 0.00000003 | 2.71828183 |

2.71828183 is an approximated value of the e constant.

The e constant has an infinite number of digits.

π=3.14159 周期

Ф=1.618 黄金分割比例

自然的 natural, physical, spontaneous, unartificial

natural EMF自然电磁场

自然发生spontaneity, heterogenesis异形生殖

with a degree of fluency and spontaneity

达到流利自然的程度

自然发展outgrowth 分枝

自然美natural beauty

自然亲和力natural affinity

自然杀手natural killer

自燃spontaneous combustion

自燃栖息地natural habitat

自燃选择natural selection

自杀suicide

Suicidal thought想自杀

自上而下top-down approach

vs bottom-up approach自下而上

自身per se

自身调节auto-regulation

自身诱导的self-induced

自杀to commit suicide

自始至终from start to finish

自私自利self-serving

自抬身价者name-dropper

自刎to fall on one’s own sword

自我self, ego

自我鞭笞(chi1) self-flagellating

自我嘲弄self-parody

自我创造autopoisis

自我感觉良好feel-good (story)

自我隔离self-isolate

自我忽视self-marginalizing

自我激活to self-activate

自我激励的self-motivated

自我扩张self-aggrandizement

自我流放self-imposed exile

自我批评self-criticism

自我认证self-attestation

自我陶醉to anesthetize oneself, self-infatuated，

narcissist自我陶醉者

自我陶醉的疯子narcissistic maniac

自我调整to self-regulate

自我推荐的unsolicited

自我牺牲self-immolation

自我折磨self-torture

自我指涉self-reference

自我造成的self-inflicted

自相矛盾地paradoxically

自信的self-assured

自信的领导assertive leader

自信心self-efficacy

自修的self-educated

自旋电子学spintronics

Spintronics is a new approach to developing electronics where both memory devices (RAM) and logic devices (transistors) are implemented with the use of 'spin', which is the basic property of electrons that cause them to behave like tiny magnets, as well as the electronic charge.

Controlled spin transport in graphene and other two-dimensional materials has become increasingly promising for applications in devices. Of particular interest are custom-tailored heterostructures, known as van der Waals heterostructures, that consist of stacks of two-dimensional materials in a precisely controlled order. This review gives an overview of this developing field of graphene spintronics and outlines the experimental and theoretical state of the art.

自旋翼飞机autogyro

自学成才的self-taught

自言自语to think out loud, self-talk

自由free, freedom, liberal

to liberalize自由化

liberal hysteria自由主义歇斯底里

自由不是免费的freedom is not free

自由裁量权discretion (of field commander)

自由度 degree of freedom

6 degrees of freedom 7 degrees of freedom

自由访问unfettered access

自由基radical (人体细胞电子被抢夺是万病之源 Snatching of human cell’s electrons is the source of all diseases)

### 重要自由基

1．超氧阴离子自由基 ·O2- superoxide radical

2．[羟自由基](https://baike.baidu.com/item/%E7%BE%9F%E8%87%AA%E7%94%B1%E5%9F%BA" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)：-OH hydroxyl radical

3．羧自由基：RCOO· carboxyl radical (?)

4．脂氧自由基：ROOH· lipooxygen radical

5．[一氧化氮](https://baike.baidu.com/item/%E4%B8%80%E6%B0%A7%E5%8C%96%E6%B0%AE" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)自由基：NO· monooxidizing radical

6．[硝基](https://baike.baidu.com/item/%E7%A1%9D%E5%9F%BA" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)自由基：ONOO- nitro radical

7.[超氧化氢](https://baike.baidu.com/item/%E8%B6%85%E6%B0%A7%E5%8C%96%E6%B0%A2/8338893" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)自由基：H2O2. hydrogen superoxide radical

由于特殊的电子排列结构，氧分子极容易形成自由基。这些由[氧分子](https://baike.baidu.com/item/%E6%B0%A7%E5%88%86%E5%AD%90" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)形成的自由基统称为氧自由基。上述的氧自由基，超氧化氢H2O2，[单态氧](https://baike.baidu.com/item/%E5%8D%95%E6%80%81%E6%B0%A7" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)O2. (singlet oxygen)和[臭氧](https://baike.baidu.com/item/%E8%87%AD%E6%B0%A7" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank) (ozone)，统称为[活性氧](https://baike.baidu.com/item/%E6%B4%BB%E6%80%A7%E6%B0%A7/6657751" \t "https://baike.baidu.com/item/%E8%87%AA%E7%94%B1%E5%9F%BA/_blank)（ROS--- reactive oxygen species）。

自由记者freelance journalist(不属于任何团体)

自由价值观liberal values

自由决定的discretionary

自由流动新闻发布会free-flowing news conference

自由石匠freemason =共济联盟(操控金融)

自由是对必然的认识Freedom is the knowledge of necessity.

自由投稿人， 通讯员stringer, free-lance journalist

自由下降freefall

自由选择druthers偏爱

自圆其说self-justification

自愿地of one’s own accord

自知之明self-knowledge

自传文autobiographical essay

自尊感self-regard自爱

自证预言self-fulfilling prophecy

自制的home-made

自制洗涤液

****Liquid detergent is a cleansing agent in liquid form. Making a liquid detergent is easy for home or commercial use.****This is an efficient way to save you from expensive commercial laundry and liquid detergents and most of all it’s very effective. Most of the available ingredients can be easily bought in supermarkets or from chemical stores.

****In making your own homemade liquid detergent, you will need the following materials:****

Sodium lauryl ether sulfate, or SLES月桂基乙醚硫酸钠  
Sodium chloride or iodized salt氯化钠，加碘盐  
Cocodiethanolamide or CDEA椰油酸二乙醇酰胺  
Ethyl alcohol乙醇  
Water-soluble dye水溶性颜料  
Benzalkonium chloride氯化苯甲烃铵  
Degreaser脱脂剂  
Fragrance香精  
Distilled or de-ionized water蒸馏水，去离子水  
(All available from chemical stores化学店有货)  
Wooden or plastic ladle木质长把勺，塑料长把勺  
Medium-sized basin中等大小的盆  
Kitchen scale厨房秤  
Measuring spoons and cups量匙，量杯  
Gas stove煤气炉  
Pot罐子  
330 ml. PET bottles聚酯瓶, P5.50/pc. Available at Cachetrade in Cubao, Quezon City.

(procedures are omitted)

最简单的配方：

小苏打baking soda

碱alkaline

白醋white vinegar

开水boiling water

自助早餐breakfast buffet

自主创新indigenous innovation

自作聪明smart aleck kid

自责self-blame

字word, Chinese character, hanzi

会意字logical aggregate

形声字phonetic complex

象形字pictograph

指事字ideogram, ideograph

生僻字obscure word

常用字frequently used character

合体字ligature, compound Chinese character:

He has become something.



日日有见财Some wealth comes on a daily basis.



家和万事兴Family harmony succeeds in everything.



天人合一harmony between human and nature



天长地久ever-lasting

字的形声义

|  |  |  |  |
| --- | --- | --- | --- |
| Term | **spelling** | **pronunciation** | meaning |
| 术语 | 形 | 声 | 义 |
| Homonym | 同 | 同 | 异 |
| Homograph | 同 | 同/异 | 异 |
| Homophone | 同/异 | 同 | 异 |
| Heteronym | 同 | 异 | 异 |
| Heterograph | 异 | 同 | 异 |
| Polyseme | 异 | 同/异 | 异但有关联 |
| Capitonym | 同 | 同/异 | 异（大写时） |
| Synonym | 异 | 异 | 同 |
| Synophone | 形似 | 声似/不全同 | 异 |

字典dictionary

纸质字典paper dictionary

数字字典digital dictionary,electronic dictionary

Macmillan dictionary:

open dictionary 公开字典，

crowdsourced dictionary众包字典，

downloadable可下载的,

hyperlinked可跳转的,

mobile optimized随时优化,

with buzzword column时髦词专栏，

to polish one’s language skills提高语言技巧

字段A **field** is an area of a computer's memory or a program where data can be entered, edited, or stored. 字段 [计算机]

字符串string---an array of characters

字符集character repertoire, character set:

ASCI

ASCII--- American Standard Code for Information Interchange美国信息交换标准码

EBCDIC---Extended Binary Coded Decimal Interchange Code

扩充的二进制编码的十进制交换码

unicode万国码，统一码，统一字符标准

Charset(信息单位)一个英文字母，一个汉字，一个标点符号

字符类型character types:

digits---decimal digits

spaces

letters

punctuation

control characters

any linguistic characters

字节跳动，抖音byte dance(中国的驰名软件)

字里行间的暗示hint between the lines

字谜anagram,charade, logograph, rebus (riddle about a Chinese character)

a couplet:

upper line (萧三题：) 目旁是贵，瞆眼不会识贵人

lower line (毛泽东答：)门内有才，闭门岂能纳才子

注：瞆(Kui3)weak sight, amblyopia

字幕新闻fact sheet

字头缩写acronym

字体大小(CSS) font-size (按ctrl+/-扩缩文字)

绝对长度单位=物理尺寸：

in--- inch英寸

cm--- centimeter厘米 = 28.35点(磅)

mm--- millimeter 毫米

pt--- point 磅，点 = 0.3527mm ; when the resolution is 72dpi(dot per inch), = 1 pixel

when the resolution is 96dpi, = 1.333pixel. It is a typographic unit.

1. -- ha齿 = 0.25mm行距，字距，基线偏移量

ap--- American point美式点 =0.3514mm

hao号 unit in Chinese and Japanese typesetting

相对长度单位：

px--- pixel像素

em--- element 元素字体高度 1em = 16px(默认)

% percentage百分比 1em = 16px\*62.5% = 10px

rem--- root element 根元素 width:5rem /\*50px\*/; height 5rem/\*50px\*/

rpx--- responsive pixel 是微信小程序中的css单位 规定屏幕宽为750px. 如在iphone6上，屏幕宽度为375px，共有750个物理像素，则750rpx=375px=750物理像素，1rpx = 0.5px = 1物理像素

设备rpx换算px（屏幕宽度/750）px换算rpx(750/屏幕宽度)

iphone5 1rpx=0.42px 1px=2.34rpx

iphone6 1rpx=0.5px 1px=2rpx

iphone6s 1rpx=0.552px 1px=1.8rps

vw--- viewport width 窗口宽度的1%

vh--- viewport height 窗口高度的1% 若浏览器为1100px:700px则高为7x,宽为11px

若浏览器为800px:1080px 则高为8px 宽为10.8px

vmax--- viewport maximum窗口最大值

vmin--- viewport minimum 窗口最小值

css font-face字体格式，css font-style 字型

css font-family字体类型

css font-style 字型

css line-height行高，行距

css font-variant变形

Font-weight字体粗细：

normal 正常

bold 粗体

bolder 特粗

lighter细体

字形glyph

字意的literal

**Zong**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [宗8](http://xh.5156edu.com/html3/6251.html) [总9](http://xh.5156edu.com/html3/13655.html)[纵7](http://xh.5156edu.com/html3/9288.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zong 1

宗主国zuserain

综合(集成)推理integrated reasoning

综合要求blanket request

综合症syndrome

derangement syndrome精神错乱综合症

postural syndrome姿势异常综合症

dysfunction syndrome功能障碍综合症

综述roundup, overview

综艺节目variety show

棕橙色的terra-cotta

棕榈chamaerops excelsa, hemp palm, palm, windmill palm

macaw(美国)棕榈

palm leaf棕榈叶

Zong 3

总安慰者comforter-in-chief

总比没有好 It is better than nothing.

总编辑editor-in-chief

总变差total variation

总称interdiscriplinary umbrella

总的看法overarching view

总的说来in gross terms毛额

总而言之in a nutshell

总分类账general ledger

总公司parent company vs subsidiary子公司

总冠军overall winner

总计aggregate

总结to sum up

总警司chief superintendent

总览synopsis

总理premier, chancellor

总量管制与交易制度cap-and-trade system

总溶解固体小玩意TDS (total dissolved solids) gadget



总收入to gross

总司令commander-in-chief

总体得失overall gains and losses

总体方案overarching package

总统 (前提条件) US president implies,he :

did well in school 中小学成绩好

headed off to college 上过大学

earned degree 获得过学位

had a fruitful vocation 职业富有成效and 并且

got into legislative issues in the long run终究卷入立法事宜

interim president临时总统

总账(general) ledger

总之in short，in a nutshell

Zong 4

纵

lengthwise纵长

to set ablaze纵火

纵横家diplomats with great ability and wisdom

vertical integration合纵(苏秦)

horizontal integration连横(张仪)

纵横交错criss-cross

纵火arson

arsonist纵火者(犯)

arson attack纵火案

纵容to pamper, to connive

**Zou**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [邹7](http://xh.5156edu.com/html3/2241.html) [走7](http://xh.5156edu.com/html3/19246.html) [奏9](http://xh.5156edu.com/html3/4970.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zou 1

邹a surname

Zou 3

走to walk

走遍天下to go global

走出困境to break the dilemma of...

走错路to make a wrong move

走调了off-key

走弧线to arc from genius billionaire to

shappy recluse?

走捷径to cut the corners

走紧绳(或钢丝)to walk a tight rope

to walk a diplomatic tightrope慎重开展外交工作

走开to step aside, to walk away

走廊hallway, veranda, corridor

走漏消息tip off

走入歧途to go astray

走神 zone out

走私货contraband

走私者smuggler

走投无路to go off to an inauspicious start

走下坡路on a downward path

走向世界策略 “go-global” strategy

走运to have one’s days

走在前列to spearhead

走卒pawn

Zou 4

奏效to pan out

揍to beat, to smash，to pummel （用拳连续揍）

**Zu**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [租10](http://xh.5156edu.com/html3/14343.html)[足7](http://xh.5156edu.com/html3/19312.html) [阻7](http://xh.5156edu.com/html3/2242.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zu 1

狙击手sniper

租借法案lend-lease act

租金rental, charter money

rental assistance租金援助

租赁to lease

available for lease or rent供租赁

Zu 2

足foot，as much as

足够了to suffice

足够自足enough self-sufficiency

足迹footprint

足球football, soccer(football British style)

FIFA---federation international de football association国际足联

IFAB---international football association board国际足球协会理事会

Competitions:

World cup世界杯 knockout phase淘汰阶段

Friendly match 友谊赛

Home主场

Away ground, visiting field客场

Away goal rule客场进球规则

disabled men football残废人足球

junior football 少年足球

senior football 老年足球

women football女子足球

Referee(who officiates the game)裁判（主持比赛）

assistant referee 助理裁判

video assistant referee (VAR)视频助理裁判

the 4th official四把手

Participants参与人:

Players球员

Strikers or forwards攻球手，前锋

Defenders防卫

Middle fielders中场

Substitute替补队员

Goal-keeper守门员

Outfield players外场人员

Kit or basic equipment基本装备

Shirt上衣

Shorts短裤

Socks护袜

Footware鞋

Adequate shin guards腿护

Athletic supporter运动员护套

Headgear帽子

(without 不带jewellery珠宝 and watch手表)

Misconducts (球场上的)不良行为:

Penal fouls受罚的违规

(Punishable by a direct free kick or

penalty kick直接任意球，发球:)

Handling the ball deliberately故意操纵球

Tripping an opponent绊倒对方

Pushing an opponent推搡对方

(Other fouls are punishable by

indirect free kick间接任意球:)

Caution (yellow card)黄牌警告

Dismissal (red card)红牌罚出场

Off-field incidents场外事件:

Club’s financial mismanagement俱乐部财务管理混乱

Doping使用兴奋剂

Age fraud年龄造假

Match fixing打假球

Forfeiting a game不参赛

In play or out of play玩中，暂停

Kick-off开球 (coin tossing抛币决定)

Throw-in掷界外球

Goal kick球门发球

Corner kick角球

Indirect free kick间接任意球

Direct free kick直接任意球

Penalty kick罚点球

Heading with the forehead头顶球

Dropped-ball无效球

Penalty shootouts点球大战

Golden goal金球制 （一球获胜）

Silver goal银球制

Game play玩法：

Goal scoring opportunities进球得分机会

Dribbing盘球

Passing the ball to a teammate传球

Taking shots at the goal向球门射球

Free-flowing game自由流动式玩法

Offensive-minded game进攻性玩法

Defensive-minded game防御性玩法

球场pitch

touch lines边线

goal lines球门线

足以杀死活奔乱跳的有机物more than enough to kill live organisms

足以使本国骄傲to do one’s country proud

足智多谋resourceful, resourcefulness

Zu 3

组胺histamine--- igE-mediated histamine release from human basophils从人的嗜碱细胞释放的免疫球蛋白E 介导的组胺

anti-histamine抗组胺剂

histaminase组胺酶

Histamine-releasing factor组胺释放因子HRF

组成makeup

组蛋白histone--- ****:**** any of various simple water-soluble proteins that are rich in the basic amino acids lysine and arginine精氨酸 and are complexed复杂 with DNA in the nucleosomes of eukaryotic真核生物 chromatin核染质。H3,H2A,H2B,H4 form the eukaryotic nucleosome核酸体 octamer八聚体 core.

histone code组蛋白密码--- the existence of di- and trimethylation二和三甲基化 of lysine 27赖氨酸 of [histone H3](https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/histone-h3" \o "Learn more about Histone H3 from ScienceDirect's AI-generated Topic Pages) (H3K27me2/3) both symmetrically and asymmetrically in native [chromatin](https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/chromatin" \o "Learn more about Chromatin from ScienceDirect's AI-generated Topic Pages) in approximately equal proportions.

组合拳one-two pun

组合(数)学combinatorics

combinatorial explosion组合爆炸

组件component

组织to curate, to organize; tissue

histological examination组织学检查

histopathology组织病理学

regimentation组织化,系统化

Spontaneous tissue自(然)发(生)组织

tissues and organs组织和器官

tissue plasminogen activator组织纤维溶酶原激活物

to run or hold an event组织一次活动

祖传的patrimonial

祖先ancestor, progenitor

阻碍to barricade, to clog, to derail，to hamper，to impede, to short circuit, to stonewall, to throw a wrench, to stand in the way

阻碍司法to obstruct justice

阻碍议案通过filibuster

阻挡to block

to block one’s transit阻止某人过路

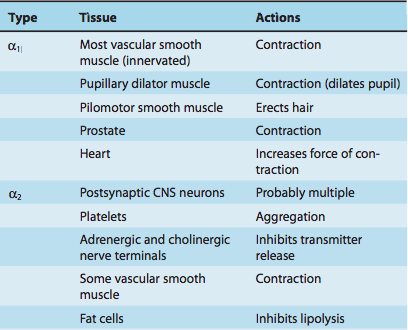
阻断剂，阻滞剂blocker

**Beta blockers贝塔阻断剂**, also written **β-blockers**, are a class of medications that are predominantly used to manage [abnormal heart rhythms](https://en.wikipedia.org/wiki/Cardiac_arrhythmia" \o "Cardiac arrhythmia)异常心率, and to protect the heart from a second heart attack ([myocardial infarction](https://en.wikipedia.org/wiki/Myocardial_infarction" \o "Myocardial infarction)心肌梗塞) after a first heart attack (secondary prevention).[[1]](https://en.wikipedia.org/wiki/Beta_blocker" \l "cite_note-pmid10381708-1) They are also widely used to treat high blood pressure ([hypertension](https://en.wikipedia.org/wiki/Hypertension" \o "Hypertension)), although they are no longer the first choice for initial treatment of most patients.[[2]](https://en.wikipedia.org/wiki/Beta_blocker" \l "cite_note-pmid24352797-2)

Beta blockers are [competitive antagonists](https://en.wikipedia.org/wiki/Competitive_antagonist" \o "Competitive antagonist)竞争性拮抗剂 that block the receptor sites for the [endogenous](https://en.wikipedia.org/wiki/Endogenous" \o "Endogenous) [catecholamines](https://en.wikipedia.org/wiki/Catecholamine" \o "Catecholamine) [epinephrine](https://en.wikipedia.org/wiki/Adrenaline" \o "Adrenaline)内源性儿茶酚胺肾上腺素 (adrenaline) and [norepinephrine](https://en.wikipedia.org/wiki/Norepinephrine" \o "Norepinephrine)降肾上腺素 (noradrenaline) on [adrenergic beta receptors](https://en.wikipedia.org/wiki/Beta_receptor" \o "Beta receptor)肾上腺素能**β受体**, of the [sympathetic nervous system](https://en.wikipedia.org/wiki/Sympathetic_nervous_system" \o "Sympathetic nervous system)交感神经系统, which mediates调停 the [fight-or-flight response](https://en.wikipedia.org/wiki/Fight-or-flight_response" \o "Fight-or-flight response)战或逃反应. Some block activation激活 of all types of [β-adrenergic receptors](https://en.wikipedia.org/wiki/%CE%92-adrenergic_receptor" \o ") and others are selective for one of the three known types of beta receptors, designated β1, β2 and β3 receptors.[[5]](https://en.wikipedia.org/wiki/Beta_blocker" \l "cite_note-urlCurrent_Cardiovascular_Drugs_2nd_page-5) [β](https://en.wikipedia.org/wiki/Beta-1_adrenergic_receptor" \o "Beta-1 adrenergic receptor)[1](https://en.wikipedia.org/wiki/Beta-1_adrenergic_receptor" \o "Beta-1 adrenergic receptor)[-adrenergic receptors](https://en.wikipedia.org/wiki/Beta-1_adrenergic_receptor" \o "Beta-1 adrenergic receptor) are located mainly in the heart and in the kidneys.[[4]](https://en.wikipedia.org/wiki/Beta_blocker" \l "cite_note-urlPharmacotherapeutics_for_advanced_..._-_Google_Books-4) [β](https://en.wikipedia.org/wiki/Beta-2_adrenergic_receptor" \o "Beta-2 adrenergic receptor)[2](https://en.wikipedia.org/wiki/Beta-2_adrenergic_receptor" \o "Beta-2 adrenergic receptor)[-adrenergic receptors](https://en.wikipedia.org/wiki/Beta-2_adrenergic_receptor" \o "Beta-2 adrenergic receptor) are located mainly in the lungs, gastrointestinal tract, liver, uterus, vascular smooth muscle, and skeletal muscle. [β](https://en.wikipedia.org/wiki/Beta-3_adrenergic_receptor" \o "Beta-3 adrenergic receptor)[3](https://en.wikipedia.org/wiki/Beta-3_adrenergic_receptor" \o "Beta-3 adrenergic receptor)[-adrenergic receptors](https://en.wikipedia.org/wiki/Beta-3_adrenergic_receptor" \o "Beta-3 adrenergic receptor) are located in fat cells.

Alpha blocker阿尔法阻断剂

|  |  |
| --- | --- |
| **Alpha blockers  α-blockers** | |
| *[Drug class](https://en.wikipedia.org/wiki/Drug_class" \o "Drug class)* | |
| **Class identifiers** | |
| **Use用途** | • [Hypertension](https://en.wikipedia.org/wiki/Hypertension" \o "Hypertension)  • 高血压[Vasoconstriction](https://en.wikipedia.org/wiki/Vasoconstriction" \o "Vasoconstriction)血管收缩  • [BPH](https://en.wikipedia.org/wiki/Benign_prostatic_hyperplasia" \o "Benign prostatic hyperplasia)前列腺良性增生  • [Raynaud's Disease](https://en.wikipedia.org/wiki/Raynaud's_Disease" \o "Raynaud's Disease)肢端动脉痉挛症  • [Pheochromocytoma](https://en.wikipedia.org/wiki/Pheochromocytoma" \o "Pheochromocytoma)嗜铬细胞瘤  • [CHF](https://en.wikipedia.org/wiki/Congestive_heart_failure" \o "Congestive heart failure)充血性心力衰竭  • [Erectile Dysfunction](https://en.wikipedia.org/wiki/Erectile_Dysfunction" \o "Erectile Dysfunction)勃起功能障碍 |
| **[Mechanism of action](https://en.wikipedia.org/wiki/Mechanism_of_action" \o "Mechanism of action)作用机制** | • [Receptor antagonist](https://en.wikipedia.org/wiki/Receptor_antagonist" \o "Receptor antagonist)受体拮抗剂  • [Inverse agonist](https://en.wikipedia.org/wiki/Inverse_agonist" \o "Inverse agonist)反向兴奋剂  • [Neutral antagonist](https://en.wikipedia.org/wiki/Neutral_antagonist" \o "Neutral antagonist)神经拮抗剂 |
| **[Biological target](https://en.wikipedia.org/wiki/Biological_target" \o "Biological target)生物目标** | [α-adrenoceptors](https://en.wikipedia.org/wiki/Adrenergic_receptor" \l ".CE.B1_receptors" \o "Adrenergic receptor)肾上腺受体 |
|  | |

z[](https://en.wikipedia.org/wiki/File:Alpha_blocker_location.png)

**α1**组织：大部分血管平滑肌（受神经支配） 作用：收缩

瞳孔扩大肌 收缩（扩大瞳孔）

竖毛平滑肌 竖毛

前列腺 收缩

心脏 增加收缩力

**α**2  中枢神经系统突触后神经元 可能好多倍

血小板 聚合

肾上腺能和胆碱能神经终端 抑制递质释放

某些平滑肌 收缩

脂肪细胞 抑制脂类分解

**Alpha-blockers,** also known as **α-blockers** or **α-adrenoreceptor antagonists肾上腺受体拮抗剂,** are a class of [pharmacological agents](https://en.wikipedia.org/wiki/Pharmacological_agent" \o "Pharmacological agent)药剂 that act as [antagonists](https://en.wikipedia.org/wiki/Neutral_antagonist" \o "Neutral antagonist) on [α-adrenergic receptors](https://en.wikipedia.org/wiki/Adrenergic_receptor" \l ".CE.B1_receptors" \o "Adrenergic receptor) ([α-adrenoceptors](https://en.wikipedia.org/wiki/Adrenergic_receptor" \o "Adrenergic receptor)).

Today, they can be used as clinical treatments for a limited number of diseases.

Although alpha blockers can only treat a small range of diseases, some of them have clinical uses, such as having the ability to treat [hypertension](https://en.wikipedia.org/wiki/Hypertension" \o "Hypertension), [Raynaud's disease](https://en.wikipedia.org/wiki/Raynaud_syndrome" \o "Raynaud syndrome)肢端动脉痉挛症, and [erectile dysfunction](https://en.wikipedia.org/wiki/Erectile_dysfunction" \o "Erectile dysfunction)勃起功能障碍. Generally speaking, all of these treatments function by binding an α-blocker to α receptors in the arteries and smooth muscle. Ultimately, this relaxes the smooth muscle or blood vessels, which increases fluid flow in these entities.

阻拦证人作证（罪）witness tampering

witsec---witness security证人安全保证

阻燃剂flame retardant

阻挠to snooker, to stymie the growth从中作梗

阻塞点choke points:

Bab el-Mandab strait (Yemen)巴布-埃尔-曼德海峡

Bosporus strait (Turkey)博斯普鲁斯海峡

Danish strait (Denmark)丹麦海峡

Hormuz strait (Iran)霍尔木兹海峡

Malacca strait (Singapore)马六甲海峡

Panama canal (Panama)巴拿马运河

Suez canal (Egypt)苏伊士运河

阻止to block, to spike, to head off, to pin down, to scuttle,

to stem

to bar sb from doing sth

to stem a stock market rout阻止股市溃败

阻止动物to deter animals

阻止...流动to stem the flow of...

阻止某人干某事to bar sb from doing sth

阻止所有的模拟私人网to block all VPN’s

诅咒anathema

诅咒状态cursed state

狙(ju1 or zu)击手sniper

**Zuan**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [钻10](http://xh.5156edu.com/html3/14561.html) [纂20](http://xh.5156edu.com/html3/17105.html) [攥23](http://xh.5156edu.com/html3/8215.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zuan 1

钻石经销商diamond dealer

钻研to dive into, to pore over

Zuan 3

纂to compile, to edit

Zuan 4

攥to grasp, to hold

**Zui**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [咀8](http://xh.5156edu.com/html3/5492.html) [嘴16](http://xh.5156edu.com/html3/6005.html) [最12](http://xh.5156edu.com/html3/13818.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zui 1

咀mouth, to chew

Zui 3

嘴碎的flippant

嘴硬手软to talk tough but do little

Zui 4

最most, the most

Pray for the best, plan for the worst

为最好结果祈祷，为最坏结果准备

最常看的影片most-watched film

最粗暴的人群toughest crowd

最大化，最小化to maximize vs to minimize

to maximize the benefits利益最大化

最低的欢迎度rock-bottom popularity

最低工资rock-bottom wage, minimum wage

最大的冲击biggest hit

最大份额lion’s share

最大公约数greatest common divisor (GCD) =Euclidean algorithm 辗转相除法

=最大公因数highest common factor (HCF)

最小公倍数least common multiple (LCM)

最大化to maximize vs to minimize

最大障碍biggest barrier

(以)最低价格at rock-bottom prices

最多at best

(阅读)最多的报纸most-read newspaper

最高的top-flight, superlative

Top-flight league足球中超

最高点apogee

最高奖grand prix

最高决策机构pinnacle body---politburo standing committee

最高领袖supreme leader, supremo

最高水平的state-of-the-art

最坏的情况worst-case scenario

最近of late

最关心的问题overriding concern

最后的努力last-ditch effort

最划算most bang for the buck

最好的商品top-of-the-line

最好的军用飞机top-of-the-line military aircraft

最好知道，高兴知道nice to know

最坏的情况in worst-case scenario

最后的斜坡last off ramp

最后通牒ultimatum

最后上诉last-ditch appeal

最后挑选to shortlist

最后敲定to finalize

最后通牒ultimatum

最后一招last resort

最后一部分homestretch

最后一搏last-ditch

最棘手的问题thorniest issue

最佳(的) vintage, best run, best-in-class, sweet spot

to mark a sweet spot for a healthy US economy

最佳国际形象衡量标准best international image measures:

Governance治理

Export出口

Culture文化

People人民

Tourism旅游

Immigration移民

Investment 投资

最佳信息best information

最佳状态in tip-top shape

最坚定的盟友staunchest ally

最近一次冒险latest foray

最经不起负面审查to least afford negative scrutiny

最可爱的和平使者 cutest peacemaker---giant panda

最拿手的事The very thing they do best.

最热警报maximum heat alert

最热门的节目biggest hit

最喜欢的东西The very thing they love most.

最先进的军舰most-advanced warship

最新的up-to-date, up-to-the-minute

最新式样latest craze

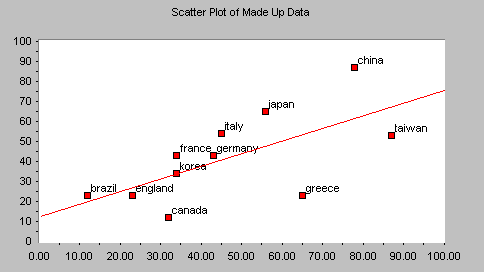
最小二乘法，最小平方least square method

The goal of Least-Squares Method is to find a good estimation of parameters that fit a function, f(x), of a set of data, x 1 . . . x n {\displaystyle x\_{1}...x\_{n}} IMG_256. The Least-Squares Method requires that the estimated function has to deviate as little as possible from f(x) in the sense of a 2-norm. Generally speaking, Least-Squares Method has two categories, linear and non-linear. We can also classify these methods further: ordinary least squares (OLS), weighted least squares (WLS), and alternating least squares (ALS) and partial least squares (PLS).

least square estimation

least square fitting最小二乘法拟合

(least square) scatterplot散点图



* If the points cluster in a band running from lower left to upper right, there is a positive correlation (if x increases, y increases).
* If the points cluster in a band from upper left to lower right, there is a negative correlation (if x increases, y decreases).
* Imagine drawing a straight line or curve through the data so that it "fits" as well as possible. The more the points cluster closely around the imaginary line of best fit, the stronger the relationship that exists between the two variables.
* If it is hard to see where you would draw a line, and if the points show no significant clustering, there is probably no correlation.

least square mean

least square regression

最隐秘之处best-kept secret

最远点，天涯海角ultima thule

最糟糕的发言worst-ever speech

最值钱的品牌前十名(as of 2nd quarter 2018) BrandZ:

Google

Apple

Amazon

Microsoft

Tencent investment holding company, China

Face book

Visa

McDonald’s

Alibaba ecommerce company,China

AT&T

罪crime, sin

felony重罪 vs misdemeanor, minor offence轻罪

convicted felon已判的重罪犯

mayhem故意伤害罪

罪大恶极的heinous

罪犯criminal

罪魁祸首culprit

罪行：crime

bank robbery银行抢劫

bribery行贿

cyberstalking网络跟踪骚扰

extortion, racketeering敲诈勒索

fraud欺诈:

bank fraud银行欺诈

financial fraud金融欺诈

Insurance fraud保险欺诈

To abduct诱拐

To dope吸毒成瘾

To drug用药麻醉

To enslave奴役

To hijack绑架

To kidnap绑架

To torture折磨

罪人sinner, culprit

罪状charges in a indictment

Trump embarrassed us in the eyes of our children;

Trump humiliated us on the world stage, worst of all;

Trump divided us as a nation.

醉酒的drunk

醉酒的游客inebriated tourist

**Zun**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [尊12](http://xh.5156edu.com/html3/4921.html) [撙15](http://xh.5156edu.com/html3/8089.html) [捘10](http://xh.5156edu.com/html3/7766.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zun 1

尊贵的exalted

尊敬to venerate

尊严dignity, true worth

遵守to comply with, to abide by, to hew, to stick or adhere to

to abide by Chinese laws and regulations遵守中国法规

to honor the extradition treaty遵守引渡条约

遵守规定to follow the guideline

遵守义务to honor the obligations

遵循轨迹to follow the same trajectory as...

尊重传统to respect the tradition

尊重的分歧respectful disagreement

尊重法制to respect the rule of law

尊重公投结果to honor the result of the referendum

尊重某人的坦诚to respect one’s candor

尊重权威to respect authority

尊重现有条约to honor the existing pact

Zun 3

撙to economize, to save

Zun 4

捘to press or push with finger

**Zuo**

**阴平阳平上声去声**

**曲调melody: l3 3| 3 5| 214| 5 1l**

**样品字sample character:** [作7](http://xh.5156edu.com/html3/2859.html)[琢12](http://xh.5156edu.com/html3/13432.html) [左5](http://xh.5156edu.com/html3/5016.html) [坐7](http://xh.5156edu.com/html3/9466.html)

**号表法no.indicator:** 1 2 3 4

**知识对应knowledge counterpart:**

Zuo 1

作弊的rigged

to rig the election操纵选举

作怪相to grimace

作乱to stymy

作品本身就是证明the work speaks for itself

作祟to haunt

作秀to do publicity stunt

作为to serve as

作为尊重的标志as a mask of respect

作业coursework

作业课文worktext, worktexty

作战to combat

combat-ready可作战的

作战行动勋章combat action medal

作证to bear witness

to bear false witness作伪证

作者author, authorship

group authorship集体作者

lead author第一作者

Zuo 2

琢to carve, to chisel, to grind

Zuo 3

左left, levo-

左脚踢球left-footed strike

左轮手枪revolver. Six-gun

revolver’s drum左轮手枪的圆筒

左撇子lefty

左右为难in a dilemma

左右摇摆的wiggly

左旋的levogyrate, levorotatory, sinistral

佐证a case in point恰当的示例

Zuo 4

坐标coordinates

Cartesian coordinates笛卡尔坐标

Curvilinear coordinates曲线坐标

Orthogonal coordinates正交座标，直角坐标

Polar coordinates极坐标

Skew coordinates斜坐标

坐骨神经痛sciatica：when an intervertebral disc herniates,

protrudes, irritates or impinges on the sciatic nerve root

当椎间盘脱出，突出，刺激或侵犯坐骨神经根时

坐牢to serve time behind bars

坐轮椅的wheelchair-bound

坐视不管to sit idle

“坐”是“敌” Sitting is one’s enemy. (保健用语)

坐月子lying-in, confinement in child birth

坐以待毙sitting duck

坐在柜台后面to sit behind the counter

座狼warg

座位seat

Seatguru on the airliner客机座位布局:

premium class 特等舱

first class 头等舱

business class 商务舱

economy class 经济舱

to fly x class 坐某某舱

glossary 有关词汇：

seats:

aisle seat 靠道座for leg/elbow room腿肘有活动余地

middle seat 中间座cramped狭窄

window seat 临窗座for good view好观景

reclining seat 可躺座椅

compact紧凑型

full size标配全尺寸型

row:

exit row 逃身行

bulkhead row 舱壁行

flyer:

frequent flyer with elite status有贵宾身份的乘机常客

savvy flyer精明的乘机客

others:

boarding pass 登记卡

cabin layout 座舱布置方案

extra legroom 额外空间

gate agent 检票员，登机门服务员

premium price 高价

to hit and miss 碰巧

座头鲸，驼背鲸humpback whale

座右铭maxim, motto

做to do, make, manufacture, produce

doable可做的

做出值得注意的努力to make noteworthy efforts

做大to go big

做到... to live up to...；to get it

做得非常棒to do a fantastic job

做得太过分了to cross the line

做噩梦to have nightmares

做坏事to do rotten things

做个预算to set a budget

做好事的人do-gooder

做坏事的人evildoer, wrongdoer

做角色扮演to do role-play

做决定to make decisions

做领头人to play first fiddle

做媒to matchmake

face-to-face matchmaking当面做媒

做跑腿的活儿to do the legwork

做事to do one’s job

做事粗糙to play sth rough

做事主动者self-starter

做世界末日推断to make doomsday prediction

做手脚，暗中作弊 to cheat over,

to manipulate in a fraudulent manner,

to mess about with,

to play games or tricks,

to tamper with

做手势to gesticulate

做卧底to go undercover

做先锋to spearhead

做学问to engage in scholarship, to do science

做准备工作to do one’s homework,

to lay the groundwork for

**Western knowledge elements:**

**字符(含义)**

**形式语言**

**(formal language)**

单个希腊字母：

### z Ᵹzeta /zi:tƏ/

Ᵹ represents小写时代表:

1. the [Riemann zeta function](https://en.wikipedia.org/wiki/Riemann_zeta_function" \o "Riemann zeta function) and other [zeta functions](https://en.wikipedia.org/wiki/Zeta_function_(disambiguation)" \o "Zeta function (disambiguation)) in mathematics

数学中的黎曼zeta函数和其他的zeta函数

2. the coefficient of [viscous friction](https://en.wikipedia.org/wiki/Viscosity" \o "Viscosity) in [polymer](https://en.wikipedia.org/wiki/Polymer" \o "Polymer) dynamics

聚合物动力学中的粘阻力系数

3. the [damping ratio](https://en.wikipedia.org/wiki/Damping_ratio" \o "Damping ratio)

阻尼比率

4. relative vertical [vorticity](https://en.wikipedia.org/wiki/Vorticity" \o "Vorticity) in fluid dynamics

流体动态学的相对垂直涡度

单个拉丁字母：

## Z z

Z represents大写时代表:

1. the unit prefix [zetta](https://en.wikipedia.org/wiki/Zetta" \o "Zetta) (1021)

单位前缀1021

2. the [atomic number](https://en.wikipedia.org/wiki/Atomic_number" \o "Atomic number) in Chemistry and Physics

化学和物理学中的原子序数

3. a standarized normal [random variable](https://en.wikipedia.org/wiki/Random_variable" \o "Random variable) in [Probability Theory](https://en.wikipedia.org/wiki/Probability_Theory" \o "Probability Theory) and [Statistics](https://en.wikipedia.org/wiki/Statistics" \o "Statistics)

在概率论中标准化的正规的随机变量

4. The [Partition function](https://en.wikipedia.org/wiki/Partition_function_(statistical_mechanics)" \o "Partition function (statistical mechanics)) in statistical mechanics

统计力学中的配分函数

ℤ (空心时Z {\displaystyle \mathbb {Z} } ) represents the [integers](https://en.wikipedia.org/wiki/Integer" \o "Integer)

代表整数整数

z represents小写时代表:

1. the unit prefix [zepto](https://en.wikipedia.org/wiki/Zepto" \o "Zepto) (10−21)

单位前缀10−21

2. the coordinate on the third or vertical axis in three [dimensional](https://en.wikipedia.org/wiki/Dimension" \o "Dimension) space

3维空间中的第三或垂直轴上的坐标

4. the view depth in [computer graphics](https://en.wikipedia.org/wiki/Computer_graphics" \o "Computer graphics), see also "[z-buffering](https://en.wikipedia.org/wiki/Z-buffering" \o "Z-buffering)"

计算机制图中的透视深度，参见“深度缓冲技术

5. the argument of a [complex function](https://en.wikipedia.org/wiki/Complex_analysis" \o "Complex analysis), or any other variable used to represent a complex value

复合函数中或者任何变量的自变数，用来代表复值

6. in astronomy, wavelength [redshift](https://en.wikipedia.org/wiki/Redshift" \o "Redshift)

在天文学中的红移

7. a third unknown [variable](https://en.wikipedia.org/wiki/Variable_(mathematics)" \o "Variable (mathematics))

第三个未知变量

字符串：

ZP--- zero power零功率