

What happens to  $s = 1$ ,  $s = 0$ , and  $s = .5$ ?

---

| $s$ | $x$   | $x^2 + s = \text{new } x$  | conclusion   |
|-----|---|--|--|
| 1   | 1<br>2<br>5<br>26<br>677<br>458330  | 2<br>5<br>26<br>677<br>458330<br>210066388901  | <b>Escaping!</b>   |
| 0   | 0<br>0<br>0   | 0<br>0<br>0  | <b>Attracted!</b>  |
| -.5 | -.5<br>-.25<br>-.4375<br>-.30859375<br>-.4047698975<br>-.3361613301<br>-.3869955601<br>-.3502344365 | -.25<br>-.4375<br>-.30859375<br>-.4047698975<br>-.3361613301<br>-.3869955601<br>-.3502344365<br>-.3773358395 | Notice it bounced back down!<br>Bounced back up, but not as far.<br>Down again, but not as far.<br>Up again, less far.<br>Down again, even less far.<br>Looks like it's narrowing in!<br><b>Attracted!</b> |

---