Exact solutions

1. Plain strings (207): `foo` or `f.o`
2. Anchors (208): `k$`
3. Ranges (202): `^[a-f]*$` or `^[a-g]*$` or `^[a-h]*$` or `[a-f]{4}`
4. **Backrefs (201)**: `(...).*\1`
5. Abba (196): `^(?!(.)+\1)|ef`
6. A man, a plan (177): `^(.)[^p].*\1$`
7. **Prime (286)**: `^(?!(xx+)\1+$)`
8. **Four (199)**: `(.)(.\1){3}`
9. Order (199): `^[^o]?.{5}$`
10. Triples (596): `00($|3|6|9|12|15)|4.2|.1.+4|55|.17` or `[02-5][123][257]|[07][0269]+3?$|55`
11. Glob (397): `[bncrw][bporn]|^p|c$|ta` and unpublished 403
12. Balance (454): `.{37}|^(<(..(?!<.>$))*>)*$` and unpublished 456
13. **Powers (93)**: `^(?!(x(xx)+)\1*$)` or `^((x+)(?=\2$))*x$`
14. Long count (256): `((.+)0\2+1){8}`
15. Alphabetical (317): `.r.{32}r|a.{10}te|n.n..`
16. **Powers 2 (91)**: `^((x+)\2(?=\2$))*x$`

Total: 4079 (unpublished: 4087)

Robust solutions

1. Plain strings (207): `foo`
2. **Anchors (206)**: `ick$`
3. **Ranges (202)**: `^[a-f]*$`
4. Backrefs (201): `(...).*\1`
5. **Abba (193)**: `^(?!.*(.)(.)\2\1)`
6. **A man, a plan (176 or 150*)**: `^(.)(.).*\2\1$` or `^(.?)(.?)(.?)(.?)(.?)(.?).?\6\5\4\3\2\1$`
7. Prime (286 or 284): `^(?!(xx+)\1+$)` for domain `^xx+$`; `^(?!(xx+|)\1+$)` or `^(?!(xx+)\1+$)xx` for domain `^x*$`, depending on the definition of "prime"
8. Four (199): `(.)(.\1){3}`
9. **Order (156)**: `^a*b*c*d*e*f*g*h*i*j*k*l*m*n*o*p*q*r*s*t*u*v*w*x*y*z*$`
10. **Triples (524)**: `(?=((.*?[147]){3})*((.*?[147]|){2}))(?=((.*?[258]){3})*((.*?[258]|){2}))^.*$(\3\7|\4\8(?!\3|\7)|(?!\4|\8))`
11. **Glob (336)**: `^(.*)(\*?)(.*)(\*?)(.*)(\*?)(.*) .*\1((?!\2).+|\2)\3((?!\4).+|\4)\5((?!\6).+|\6)\7$`
12. **Balance (443**)**: `^(<(<(<(<(<(<(<>)*>)*>)*>)*>)*>)*>)*$`
13. Powers (93): `^(?!(x(xx)+)\1*$)` for domain `^x+$`; `^(?!(x(xx)+)\1*$)` or `^((x+)(?=\2$))*x$` for domain `^x*$`
14. **Long count (239 or 235)**: `^((?=(\S*)0).{4} (?=\2[1]))+1+$` or `^((?=(\S*)0).{4} (?`

`=\2[1]){15}\2.$`

15. **Alphabetical (282)**: `^(?!.*\b(.*)(e|(n|r|(s|t))).* \1(a|(?!\3)[en]|(?!\4)[rs]))`
16. Powers 2 (91): `^((x+)\2(?=\2$))*x$`

Total: 3834 (conservatively: 3805)

Triples (524), pretty-printed:

```
(?=((.*?[147]){3})*((.*?[147]|){2}))
(?=((.*?[258]){3})*((.*?[258]|){2}))
^.*$(\3\7 | \4\8(?!\3|\7) | (?!\4|\8))
```

Glob (342), pretty-printed:

```
^(.*)(\*?)
 (.*)(\*?)
 (.*)(\*?)(.*) .* \1((?!\2).+|\2)
                \3((?!\4).+|\4)
                \5((?!\6).+|\6)\7$
```

* A man, a plan (150) - technically impossible, so this solution has a maximum robust length of 13 letters ** Balance (443) - technically impossible, so this solution has a maximum depth of 7 nesting levels

Domains

These domains may be controversial, as we have a limited sampling. Feel free to discuss them in this Gist.

Level	Domain regex
1. Plain strings	`^[A-Za-z][a-z]*$`
2. Anchors	`^[A-Za-z][a-z]*ick[a-z]*$`
3. Ranges	`^[a-z]+$`
4. Backrefs	`^[a-z]+$`
5. Abba	`^[a-z]+$`
6. A man, a plan	`^[a-z]+$`
7. Prime	`^xx+$` or `^x*$`
8. Four	`^[A-Za-z][a-z]*$`
9. Order	`^[a-z]+$`
10. Triples	`^[0-9]{9}$`
11. Glob	*see below*
12. Balance	`^[<>]*$`
13. Powers (93)	`^x+$` or `^x*$`

1. Long count: `^([01]{4}([1 ](?!$)|$)){16}$` or `^[01 ]{79}$` or `^.*$`
2. Alphabetical: `^([aenrst]{6}( (?!$)|$)){7}$`

If the domain of Glob must be stated in a single regex, it would be: `^([a-z]*)\*?([a-z]*)\*?([a-z]*)\*?([a-z]*) matches \1[a-z]*\2[a-z]*\3[a-z]*\4$` However, it may actually have 4 domains: `^([a-z]*)\*([a-z]+)\*([a-z]*) matches \1[a-z]*\2[a-z]*\3$` `^\*([a-z]+)\*([a-z]+)\* matches [a-z]+\1[a-z]+\2[a-z]+$` (left only) `^([a-z]+)\*([a-z]+) matches [a-z]*\1[a-z]+\2[a-z]*$` (right only) `^\*?([a-z]+)\*? matches [a-z]*\1[a-z]*$`