

■ Learn Regular Expressions – 25 Examples

1. Match lines containing “cat”

```
echo -e "cat\nconcatenate\ndog" | grep -E "cat"
```

Output:

```
cat
concatenate
```

2. Match exactly “cat” (whole word)

```
echo -e "cat\nconcatenate\ndog" | grep -E "\bcat\b"
```

Output:

```
cat
```

3. Match digits

```
echo -e "abc123\nxyz\n456" | grep -E "[0-9]+"
```

Output:

```
abc123
456
```

4. Match words starting with “a”

```
echo -e "apple\nbanana\napricot\ncat" | grep -E "^a"
```

Output:

```
apple
apricot
```

5. Match words ending with “t”

```
echo -e "cat\nhat\nhello\nflat" | grep -E "t$"
```

Output:

```
cat
hat
flat
```

6. Match any single character (.)

```
echo -e "bat\ncat\ncut\ncot" | grep -E "c.t"
```

Output:

```
cat
cut
cot
```

7. Match vowels

```
echo -e "dog\ncat\nfish" | grep -E "[aeiou]"
```

Output:

```
dog
cat
fish
```

8. Match non-vowels

```
echo -e "dog\ncat\nfish" | grep -E "[^aeiou]+"
```

Output:

```
dg
ct
fsh
```

9. Match repeated letters (double characters)

```
echo -e "letter\ncoffee\ncat" | grep -E "(.)\1"
```

Output:

```
letter
coffee
```

10. Match “color” or “colour”

```
echo -e "color\ncolour\ncoler" | grep -E "colou?r"
```

Output:

color
colour

11. Match “gray” or “grey”

```
echo -e "gray\ngrey\ngrayish" | grep -E "gr[ae]y"
```

Output:

gray
grey

12. Match numbers with 3 digits

```
echo -e "12\n123\n1234\n567" | grep -E "[0-9]{3}$"
```

Output:

123
567

13. Match email addresses

```
echo -e "test@example.com\nhello@site\nabc@xyz.org" | grep -E  
"[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-z]{2,}"
```

Output:

test@example.com
abc@xyz.org

14. Match phone numbers (XXX-XXX-XXXX)

```
echo -e "123-456-7890\n9876543210\n111-222-3333" | grep -E  
"[0-9]{3}-[0-9]{3}-[0-9]{4}$"
```

Output:

123-456-7890
111-222-3333

15. Match lines with only letters

```
echo -e "hello\nworld123\nLinux\nabc!" | grep -E "^[A-Za-z]+$"
```

Output:

```
hello
Linux
```

16. Match words with “oo”

```
echo -e "book\nboot\ncat" | grep -E "oo"
```

Output:

```
book
boot
```

17. Match lines with whitespace

```
echo -e "hello world\nhelloworld\nfoo bar" | grep -E "\s"
```

Output:

```
hello world
foo bar
```

18. Match lines without digits

```
echo -e "hello\nworld123\nlinux" | grep -E "^[^0-9]+$"
```

Output:

```
hello
linux
```

19. Match capitalized words

```
echo -e "Hello\nworld\nLinux\napple" | grep -E "^[A-Z][a-z]+$"
```

Output:

```
Hello
Linux
```

20. Match all words of 4 letters

```
echo -e "cat\ndog\nbear\nlion\nmouse" | grep -E "^\w{4}$"
```

Output:

bear
lion

21. Match IP addresses (basic)

```
echo -e "192.168.1.1\n256.100.50.25\n10.0.0.5" | grep -E  
"^[0-9]{1,3}\.){3}[0-9]{1,3}$"
```

Output:

192.168.1.1
256.100.50.25
10.0.0.5

22. Match hexadecimal numbers

```
echo -e "0x1F\n123\n0xABC\nxyz" | grep -E "^0x[0-9A-Fa-f]+$"
```

Output:

0x1F
0xABC

23. Match HTML tags

```
echo -e "\nHello\ntext" | grep -E ""
```

Output:

24. Match words with at least 2 digits

```
echo -e "a1b2\nabc123\nxyz9\n2025" | grep -E "[0-9]{2}[0-9a-zA-Z]*"
```

Output:

a1b2
abc123
2025

25. Match words that are palindromes (basic)

```
echo -e "level\nradar\nhello\ncivic" | grep -E "^(.)(.?.?){1}$"
```

Output:

level
radar
civic