List of languages:

1. U = {⟨M, x⟩ | Turing machine M accepts input x} is undecidable but recognizable.
2. $\overline{U}$ = {⟨M, x⟩ | Turing machine M does not accept input x} is unrecognizable.
3. D = {⟨M⟩ | Turing machine M does not accept ⟨M⟩} is unrecognizable.
4. $\overline{D}$ = {⟨M⟩ | Turing machine M accepts ⟨M⟩} is undecidable but recognizable.
5. H = {⟨M, x⟩ | Turning machine M halts on input x} is undecidable but recognizable.
6. $\overline{H}$ = {⟨M, x⟩ | Turning machine M doesn't halt on input x} is unrecognizable.
7. E = {⟨M⟩ | Turing machine M accepts no input} is unrecognizable.
8. $\overline{E}$ = {⟨M⟩ | Turing machine M accepts some input} is undecidable but recognizable.
9. REG = {⟨M⟩ | Turing machine M accepts regular languages} is undecidable.
10. $\overline{REG}$ = {⟨M⟩ | Turing machine M does not accept regular languages} is undecidable.
11. HET = {⟨M⟩ | TM M halts on empty tape} is undecidable but recognizable.
12. $\overline{HET}$ = {⟨M⟩ | TM M doesn't halt on empty tape} is unrecognizable.
13. ODD = {⟨M⟩ | L(M) is finite and |L(M)| is odd} is not recognizable.
14. $\overline{ODD}$ = {⟨M⟩ | L(M) is infinite or |L(M)| is even} is not recognizable.
15. FIN = {⟨M⟩ | L(M) is finite} is not recognizable.
16. INF = {⟨M⟩ | L(M) is infinite} is not recognizable. (INF = $\overline{FIN}$)
17. EQUIV = {⟨M1, M2⟩ | L(M1) = L(M2)} is not recognizable.
18. $\overline{EQUIV}$ = {⟨M1, M2⟩ | L(M1) ≠ L(M2)} is not recognizable.
19. SUBSET = {⟨M1, M2⟩ | L(M1) ⊆ L(M2)} is not recognizable.
20. $\overline{SUBSET}$ = {⟨M1, M2⟩ | L(M1) ⊄ L(M2)} is not recognizable.

Here is a picture showing if each of the above languages is decidable, recognizable or unrecognizable.