

Classifying Reactions and Balancing Chemical Equations

For each of the chemical reactions are listed below, complete the following:

Balance the skeletal equation

The type of chemical reaction (synthesis, decomposition, single displacement, or double displacement)

"s "d "sd "dd

1.

Balance the skeletal equation: 2 Cu + O₂ → 2 CuO

Reaction type: s

2.

Balance the skeletal equation: 2 H₂O → O₂ + 2 H₂

Reaction type: d

3.

Balance the skeletal equation: 2 Fe + 3 H₂O → Fe₂O₃ + 3 H₂

Reaction type: sd

4.

Balance the skeletal equation: 3 H₂S + 2 AsCl₃ → As₂S₃ + 6 HCl

Reaction type: D.D.

5.

Balance the skeletal equation: CaCO₃ → CO₂ + CaO

Reaction type: D

6.

Balance the skeletal equation: H₂S + 2 KOH → K₂S + 2 HOH

Reaction type: DD

7.

Balance the skeletal equation: S₈ + 8 Fe → 8 FeS

Reaction type: s

8.

Balance the skeletal equation: 3 H₂SO₄ + 2 Al → Al₂(SO₄)₃ + 3 H₂

Reaction type: sd

9.

Balance the skeletal equation: H₃PO₄ + 3 NH₄OH → (NH₄)₃PO₄ + 3 HOH

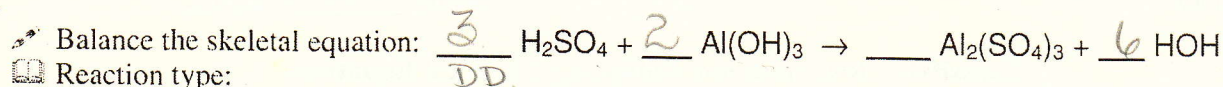
Reaction type: D.D

10.

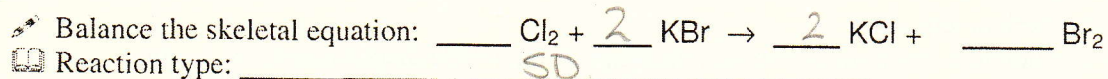
Balance the skeletal equation: 3 O₂ + 4 Al → 2 Al₂O₃

Reaction type: s

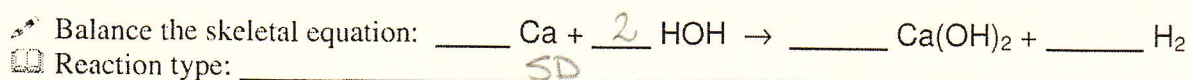
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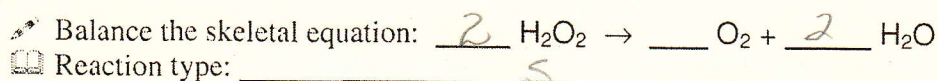
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13.



14.



15.



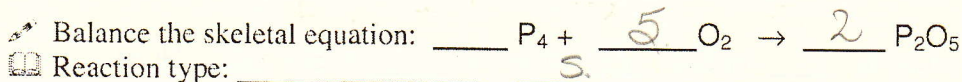
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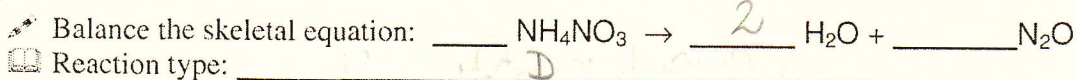
17.



18.



19.



20.

