



Naming Acids Worksheet Packet

Name: _____

1. What is the definition of an acid?
2. What are the rules for naming acids?
3. Write the names and the anions for the following acids.

<u>Acid</u>	<u>Anion</u>	<u>Name</u>
H_2SO_4		
H_3PO_4		
$\text{HC}_2\text{H}_3\text{O}_2$		
H_2SO_3		
HNO_2		
HClO_4		
HClO_3		
HClO_2		
HClO		

Write the name for the following acids in the space given.

1. HCl _____

2. H₂SO₄ _____

3. H₃PO₄ _____

4. HNO₃ _____

5. HI _____

Write the formula for the following acids in the space given.

6. hydrobromic acid _____

7. cyanic acid _____

8. perchloric acid _____

9. hydrofluoric acid _____

10. sulfurous acid _____

Write the formula for each of the acids listed below:

Nitric acid	
Hydrocyanic acid	
Chloric acid	
Acetic acid	
Hydrobromic acid	
Sulfurous acid	
Chlorous acid	
Hydrochloric acid	
Phosphoric acid	
Nitrous acid	
Hydrofluoric acid	
Perchloric acid	
Hydroiodic acid	
Phosphorous acid	
Carbonic acid	
Sulfuric acid	

Name each of the following acids:

HClO_4	
H_3PO_4	
$\text{HCl}_{(\text{aq})}$	
H_2SO_4	
HNO_2	
$\text{HI}_{(\text{aq})}$	
$\text{HC}_2\text{H}_3\text{O}_2$	
$\text{HF}_{(\text{aq})}$	
H_3PO_3	
HClO_3	
H_2CO_3	
H_2SO_3	
HClO_2	
HNO_3	
$\text{HBr}_{(\text{aq})}$	

Acid formula	Acid name
HCl	
	Hypochlorous acid
	Chlorous acid
	Chloric acid
	perchloric acid
HNO ₃	
	Hydrobromic acid
H ₃ PO ₄	
H ₃ PO ₃	
	Hydrocyanic acid
HC ₂ H ₃ O ₂	
	Carbonic acid
	Hydroiodic acid
HF	

Acid Names



H ₂ SO ₄	HClO ₄
H ₂ SO ₃	HClO ₃
HNO ₃	HClO ₂
HNO ₂	HClO
H ₃ PO ₄	HCl
H ₃ PO ₃	HBr
H ₂ CO ₃	HI
HC ₂ H ₃ O ₂	HF

1. Given the name of the acid, match its formula (assume all are aqueous)

- | | |
|-----------------------|------------------------------------|
| a. Sulfurous acid | i. HCl |
| b. Hydrosulfuric acid | ii. HNO ₃ |
| c. Nitric acid | iii. HClO ₃ |
| d. Chloric acid | iv. H ₂ SO ₃ |
| e. Hydrochloric acid | v. HF |
| f. Chlorous acid | vi. H ₂ S |
| g. Hydrofluoric acid | vii. HClO ₂ |

2. Given the formula, determine the name

a. HBr(aq)

- | | |
|------------------------|----------------------|
| i. Bromic acid | ii. Bromous acid |
| iii. Hydrobromous acid | iv. hydrobromic acid |

b. H₃PO₄(aq)

- | | |
|----------------------------|--------------------------|
| i. Phosphoric acid | ii. Phosphorous acid |
| iii. hydrophosphorous acid | iv. Hydrophosphoric acid |

c. H₂Se(aq)

- | | |
|-------------------------|-----------------------|
| i. Selenic acid | ii. Selenous acid |
| iii. hydroselenous acid | iv. Hydroselenic acid |

d. HC₂H₃O₂(aq)

- | | |
|-----------------------|-----------------------|
| i. Acetic acid | ii. Acetous acid |
| iii. hydroacetic acid | iv. Hydroacetous acid |

Name the following acids

1. HCl _____

2. HClO₄ _____

3. HIO₃ _____

4. HI _____

5. H₂SO₄ _____

6. H₂S _____

7. HCN _____

8. H₂CO₃ _____

9. HBrO₄ _____

10. HBrO₃ _____

11. HC₂H₃O₂ _____

12. H₃PO₃ _____

13. H₃P _____

14. H₂CrO₄ _____

15. H₂CrO₂ _____

16. H₂Cr _____

Give formulas for the following acids

17. hydrofluoric acid _____

18. nitric acid _____

19. nitrous acid _____

20. hydroxic acid _____

21. periodic acid _____

22. percarbonic acid _____

23. hypobromous acid _____

24. bromous acid _____

25. permanganic acid _____

26. manganic acid _____

27. iodous acid _____

28. sulfurous acid _____

29. sulfuric acid _____

30. perchloric acid _____

31. chlorous acid _____

32. acetic acid _____

33. phosphoric acid _____

34. phosphorous acid _____