

Moh's Hardness Scale : Notes/W.S. 25

A convenient way to measure hardness is by using Moh's hardness scale which is given below. Minerals are arranged from soft (1) to hard (10). The hardest mineral is diamond.

<u>Hardness</u>	<u>Mineral</u>	<u>Hardness</u>	<u>Mineral</u>
1	Talc	6	Feldspar
2	Gypsum	7	Quartz
3	Calcite	8	Topaz
4	Fluorite	9	Corundum
5	Apatite	10	Diamond

Any mineral will scratch a mineral which has a smaller hardness number. The hardness for each mineral is given in the **Common Minerals Table**. Answer the questions below. Note the following hardnesses; fingernail 2.5, penny 3.0, steel knife 5.5-6.0, file (hardened steel) 7.0, window glass 5.5-6.0, emery cloth 8.0-9.0.

- 1) Name the hardest mineral.
- 2) Name the mineral that will scratch any other, except diamond.
- 3) Name two minerals that can be scratched with your fingernail.
- 4) When you try to scratch quartz with a knife, a dark mark is left on the quartz. What is this mark?
- 5) Name all minerals that are softer than gypsum.
- 6) How would distinguish hornblende from tourmaline? Both are black with similar crystal structures and densities.
- 7) Name two minerals that will scratch a file.

Answers : 1) diamond, 2) corundum, 3) talc, gypsum, 4) It is steel powder. (the quartz is harder than the steel), 5) talc, graphite, 6) Tourmaline is harder and will scratch hornblende., 7) quartz, topaz, corundum, diamond.