Video Quiz

Video Title: Miner Mike Saves the Day – or Ground Support … It’s Important.
Length: 33 minutes
Vendor: Mine Safety & Heath Administration (MSHA) - VC956
Synopsis: Roof bolting in a partially mechanized mine (jacklegs etc.) as taught by miners – not particularly entertaining, but provides some very useful information.

1. Which of the following are used to support mine rock breaking loose from the back and ribs? a) wood timbers, b) shotcrete, c) bolts, d) mesh.
2. Mine rock is stronger in tension than in compression. True __, False__.
3. Bolting the back stops the rock from being in tension. True __, False__.
4. Bolts with plates are called “passive support”. True __, False__.
5. Fractured areas do not need additional bolts. True __, False__.
6. The scaling bar handle is pushed down to pry the loose rock out. True __, False__.
7. To make use of a jackleg easiest, put it farther from the rib than the point where it balances itself. True __, False__.
8. Bolts should be put in perpendicular to the face. True __, False__.
9. Barring loose isn’t needed when using a jumbo drill. True __, False__.
10. It’s important to keep a clean heading so you can run out of it if need be. True __, False__.
11. A piece of plywood is sometimes used to spread out the load on a bolt plate. True __, False__.
12. Important considerations when drilling to install bolts include: a) barring down, b) washing the hole, c) tapping the rod into the hole, d) using a correctly sized bit, e) using a bolt that is 3/8” larger than the hole, f) always drill the hole shorter than the bolt, g) checking the bolt with a torque wrench, h) always bar down while you’re bolting, i) checking for missed holes, j) making sure the mesh is tight.
13. Grouted bolts are used when you need less strength. True __, False__.
14. When using grouted bolts it is important that the hole be deeper than the bolt. True __, False__.
15. You can’t spin a resin-grouted bolt too much. True __, False__.
16. Things to watch for to ensure that ground support is still effective include: a) bolts that are hanging loose, b) cracked wooden supports c) broken heads, d) bolts that have pulled through the plates, e) broken or damaged supports, f) failed anchor, g) bolts or mesh that are rusted out, h) torn mesh or mats, i) shotcrete that is broken or cracked, j) broken rock on the floor.

1) a,b,c,d, 2) F, 3) T, 4) F 5) F, 6) F, 7) F, 8) T, 9) F, 10) T, 11) T, 12) a,d,g,h,i,j 13) F, 14) F, 15) F, 16) all