

Written Quiz

POINTS

1. Given a three hundred (300) foot, 1 1/2 " hoselay, on level ground, with a 1 1/2" combination nozzle, and a single hose tee, what is the correct engine pressure? 20

2. Given two (2) 1 1/2" hoselays, each three hundred (300) feet in length, on level ground, with 1 1/2" combination nozzles, and a single hose tee in each line, what is the correct engine pressure? 20

3. Given a six hundred (600) foot 1 1/2" hoselay, with a 3/8" tip, on level ground, with three (3) hose tees, what is the correct engine pressure? 20

4. How many gallons per minute are flowing in problem #3 above? 20

5. In problem #3 above, if the nozzle is working six hundred feet (600') above the pump, what is the correct engine pressure? 20

POINTS POSSIBLE: 100

POINTS DEDUCTED:

FINAL SCORE:

Written Quiz - Key

POINTS

1. Given a three hundred (300) foot, 1 1/2 " hoselay, on level ground, with a 1 1/2" combination nozzle, and a single hose tee, what is the correct engine pressure?

20

$$\begin{array}{r} \text{NP} = 100 \text{ PSI} \\ + \text{FL} = 132 \text{ PSI} \quad (44 \text{ PSI X 3 LENGTHS}) \\ + \text{A} = 5 \text{ PSI} \\ + \text{H} = \underline{0 \text{ PSI}} \\ \text{EP} = 237 \text{ PSI} \end{array}$$

2. Given two (2) 1 1/2" hoselays, each three hundred (300) feet in length, on level ground, with 1 1/2" combination nozzles, and a single hose tee in each line, what is the correct engine pressure?

20

$$\begin{array}{r} \text{NP} = 100 \text{ PSI} \\ + \text{FL} = 132 \text{ PSI} \quad (44 \text{ PSI X 3 LENGTHS}) \\ + \text{A} = 5 \text{ PSI} \\ + \text{H} = \underline{0} \\ \text{EP} = 237 \text{ PSI} \end{array}$$

Engine pressure would not change but pump RPM's would increase substantially

3. Given a six hundred (600) foot 1 1/2" hoselay, with a 3/8" tip, on level ground, with three (3) hose tees, what is the correct engine pressure?

20

$$\begin{array}{r} \text{NP} = 50 \text{ PSI} \\ + \text{FL} = 18 \text{ PSI} \\ + \text{A} = 15 \text{ PSI} \\ + \text{H} = \underline{0} \\ \text{83 PSI} \end{array}$$

4. How many gallons per minute are flowing in problem #3 above?

20

28 GPM

Written Quiz - Key

POINTS

5. In problem #3 above, if the nozzle is working six hundred feet (600') above the pump, what is the correct engine pressure?

20

$$\begin{array}{r} \text{NP} = 50 \text{ PSI} \\ + \text{FL} = 18 \text{ PSI} \\ + \text{A} = 15 \text{ PSI} \\ + \text{H} = \underline{258 \text{ PSI}} \\ \text{EP} = 341 \text{ PSI} \end{array} \quad (6 \times 43 \text{ PSI})$$

POINTS POSSIBLE: 100

POINTS DEDUCTED:

FINAL SCORE: