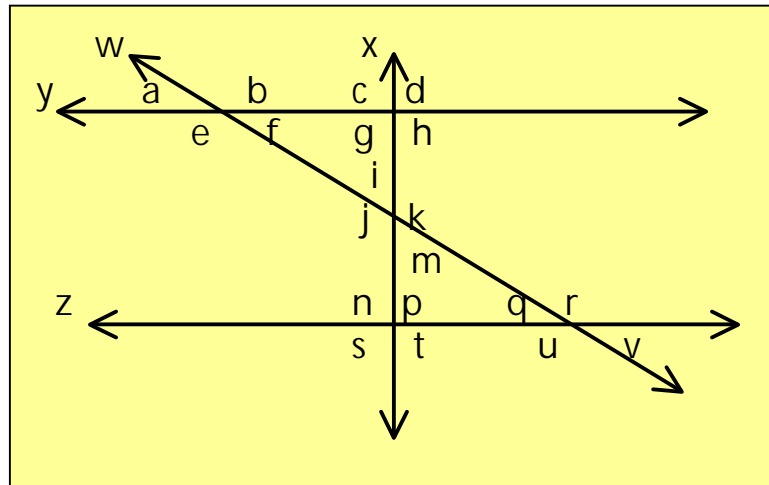


FINAL TEST

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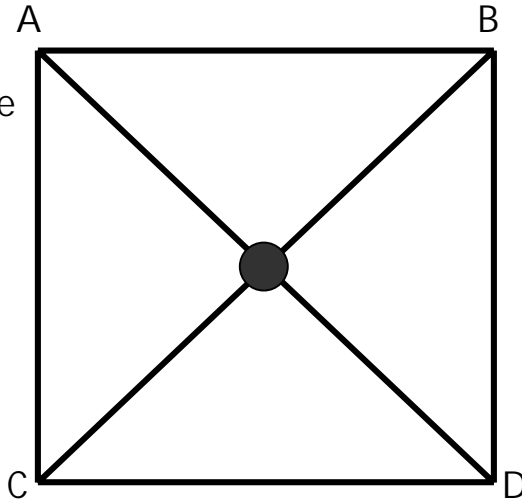
Line $y \parallel$ line z
 Line $x \perp$ line y
 $m\angle a = 32^\circ$



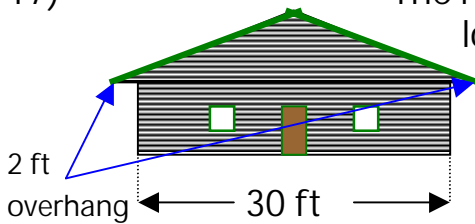
- 1) Since $\angle a$ and $\angle q$ are _____ angles, $m\angle q$ is _____ $^\circ$
- 2) Since $\angle a$ and $\angle e$ are _____ angles, $m\angle e$ is _____ $^\circ$
- 3) Since $\angle a$ and $\angle v$ are _____ angles, $m\angle v$ is _____ $^\circ$
- 4) Since $\angle v$ and $\angle f$ are _____ angles, $m\angle f$ is _____ $^\circ$
- 5) Since $\angle a$ and $\angle b$ are _____ angles, $m\angle b$ is _____ $^\circ$
- 6) Since $y \perp x$, $m\angle g$ is _____ $^\circ$
- 7) Since $\angle g$ and $\angle c$ are _____ angles, $m\angle c$ is _____ $^\circ$
- 8) Since we know that $m\angle f =$ _____ $^\circ$, and $m\angle g$ is _____ $^\circ$, and we know that the sum of the measures of the angles of a triangle is _____ $^\circ$, we know that $m\angle i =$ _____ $^\circ$
- 9) Since $\angle i$ and $\angle m$ are _____ angles, $m\angle m$ is _____ $^\circ$
- 10) Since $\angle g$ and $\angle s$ are _____ angles, $m\angle s$ is _____ $^\circ$
- 11) Since $\angle i$ and $\angle j$ are _____ angles, $m\angle j$ is _____ $^\circ$
- 12) Since $\angle j$ and $\angle k$ are _____ angles, $m\angle k$ is _____ $^\circ$
- 13) Since $\angle e$ and $\angle r$ are _____ angles, $m\angle r$ is _____ $^\circ$

- 14) Since $\angle b$ and $\angle u$ are _____ angles, $m\angle u$ is _____^o
 15) Since $\angle a$ and $\angle v$ are _____ angles, $m\angle v$ is _____^o

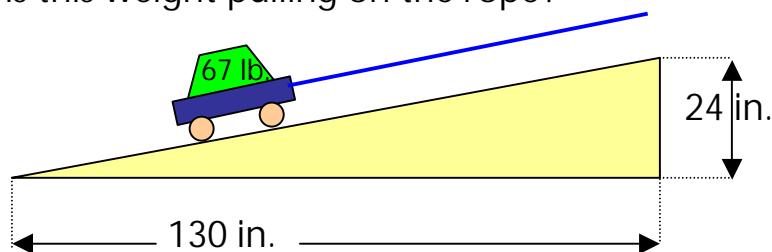
- 6) The diagram at the right is the layout of the sidewalks at Blake Park. Each side measures 400 feet long. To get from point A to point D, one can either go from point A to point C and then from point C to point D. Or he can go from point A diagonally to point D. How much closer would it be to go diagonally? Two men start walking from point D. One goes via point C toward point A. The other goes via point A toward point C. If they walk at the same rate of speed and start at the same time, how far will they be from point A when they meet?



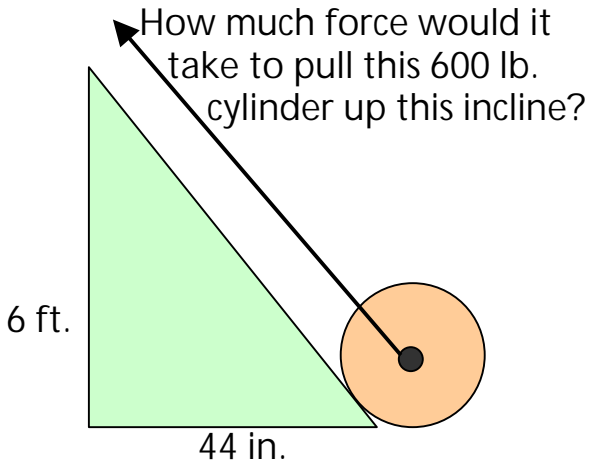
- 17) The roof on this house has a 4/12 pitch. How long would the rafters need to be for this roof? If the length of the roof is 46 long, what is the area of one side of the of the roof? What is the area of both sides of the roof? If 3 bundles of shingles covers 100 sq. ft., (called a square) How many bundles of shingles are needed to cover the entire roof? Another 5 bundles of shingles for starter and ridge will also be needed. How many bundles will be needed? How many squares will be needed? If the shingles cost \$27.90 per square, What will the shingles for this house cost?



- 18) How hard is this weight pulling on the rope?

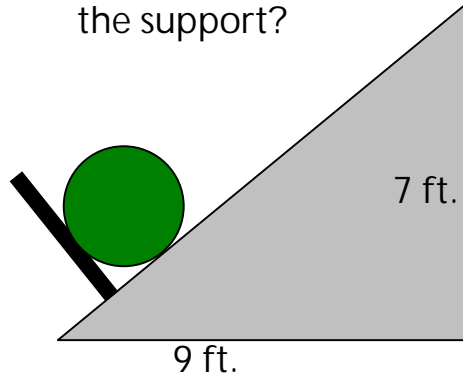


19)

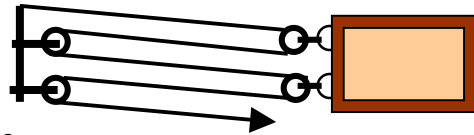


20)

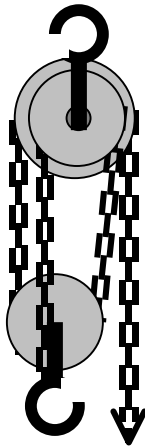
How much force is this 188 pound barrel exerting on the support?



21) A child sitting in this box requires 40 pounds of force to slide the box across the floor. The child's mother pulls on the rope in the direction of the arrow. How hard must she pull? If the child in the box pulls the rope, how much force must the child exert? How far must the baby pull the rope to move the box 1 ft?



22)



This chain hoist has 25 sockets on the larger top wheel and 24 sockets on the smaller. If the sockets are $2\frac{1}{4}$ inches apart, and someone pulls on the chain that comes off from the larger wheel with the force of 75 pounds, how much total weight is being lifted? (Disregard the loss due to friction.)

23) This is a house jack and is used to lift houses and other buildings. A bar is inserted through the hole in the threaded shaft. This particular shaft has 3 threads per inch. If the bar that is inserted through the hole extends 18 inches from the center of the shaft, how much will the jack lift if a force of 80 pounds is exerted on the end of the bar? Disregard friction and round your answer to the nearest hundred pounds.

