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***CONCRET TEST REVIEW #1***

1. You are building a concrete slab that is ***40’x60’x6”*** slab using a ***1-2 ¼-3*** mix for a home shop. Using Fullers rule, calculate the amount of bags of Portland cement needed, and the yards of sand and gravel needed to make a concrete mix.

BAGS OF CEMENT\_\_\_\_\_\_\_\_\_\_\_\_

YARDS OF SAND\_\_\_\_\_\_\_\_\_\_\_\_\_

YARDS OF GRAVEL\_\_\_\_\_\_\_\_\_\_\_

1. If Portland cement cost **2.36 a bag, sand cost 24.63/yd, and gravel sells for 28.50/yd**. how much will each item cost, and what will the total project cost?

COST OF BAGS OF CEMENT\_\_\_\_\_\_\_\_\_\_\_\_

COST OF YARDS OF SAND\_\_\_\_\_\_\_\_\_\_\_\_\_

COST OF YARDS OF GRAVEL\_\_\_\_\_\_\_\_\_\_\_

TOTAL\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You decide to consider using Ready Mix concrete to make this slab. You know that one bag will make **.5 cu/ft** of concrete. How many bags would this take to complete this project. How much will this cost if **each bag cost $2.25**?

BAGS OF READY-MIX\_\_\_\_\_\_\_\_\_\_\_\_\_

COST\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You figure with the amount of labor needed to mix the concrete yourself, it may be worth it to get ready mix by the truckload, which is sold by the cu/yd. How many **YARDS** of concrete do you need to pour this slab? At **83.64/yd**, how much will this cost?

YARDS OF CONCRETE\_\_\_\_\_\_\_\_\_\_\_\_\_

COST\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which method is the cheapest, mixing the concrete yourself, using ready mix bags, or getting the concrete by the yard in the truck?
2. Once you have chosen the method you will use, you need to start preparing the form to pour the slab. You begin by laying a sand base. If you are going to lay a **base 4” thick for the slab in problem 1**, how many yards of sand do you need. At **$24.63/yd**, how much will this cost?

YARDS OF SAND\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

COST OF SAND\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You are now going to make the batter boards (frame) for the concrete. If using a **4’x8’** sheet of plywood, how many sheets will you need to lay out this frame? How much will this cost at **$13.98/sheet?**

SHEETS OF PLYWOOD\_\_\_\_\_\_\_\_\_\_\_\_\_\_

COST\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You are using 3/8”rebar for supporting this slab. You have already figured it will take **2000 linear feet of rebar**. If rebar is sold in **20ft sections and sells for $2.65/section**, how many pieces will you need, and how much will this cost?

SECTIONS OF REBAR\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

COST\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Using the cheapest method, how much will this **ENTIRE PROJECT** cost?

GRAND TOTAL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_