

BUILDING DESIGN & CONSTRUCTION SYSTEMS - MINI-MOCK EXAM

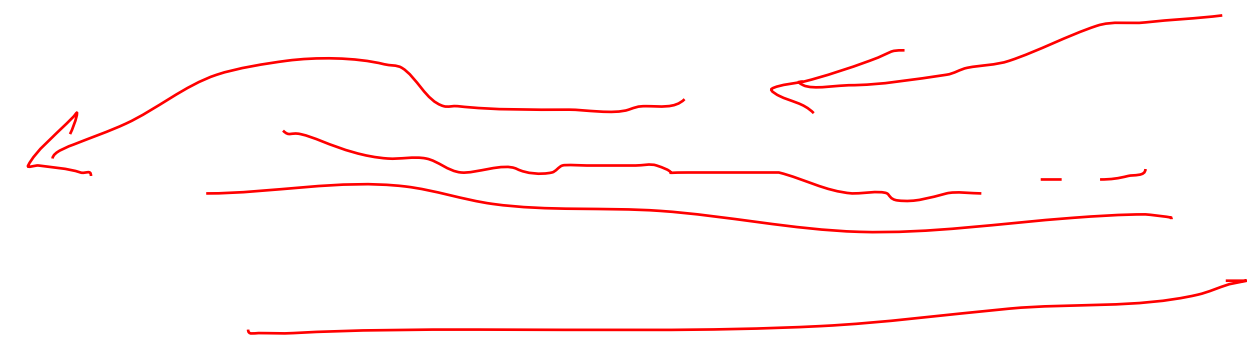
1. Which of the following is NOT true regarding bentonite waterproofing?

A. It is made with volcanic clays

B. It swells to a watertight barrier

C. It can be installed on top of a mudslab in a crawl space

D. It can be installed in a hydrostatic condition



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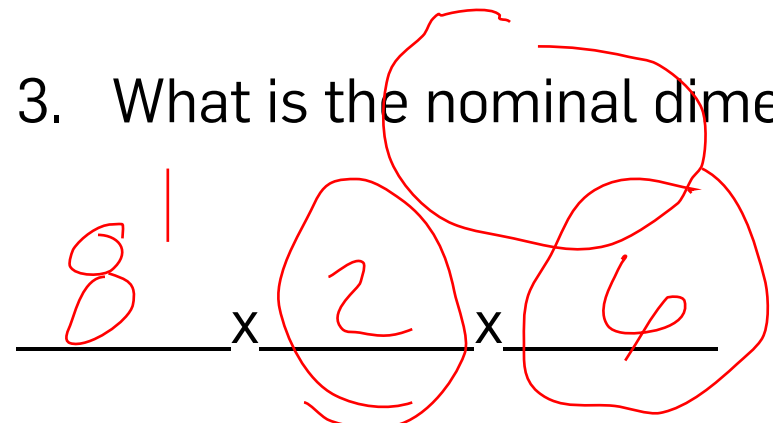
2. What is the nominal dimension of a CMU block?

— X X —

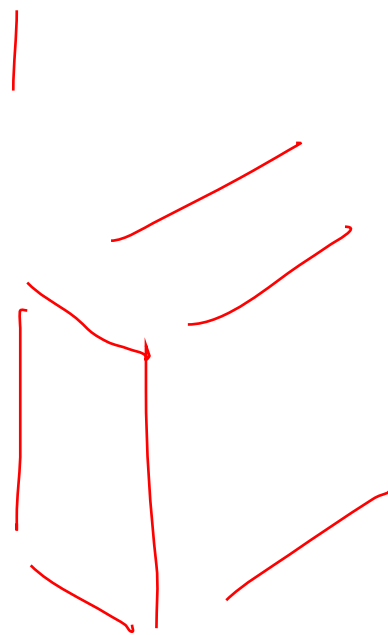


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3. What is the nominal dimension of an 8' 2x6?



$1\frac{1}{2}'' \times 5\frac{1}{2}'' \times 8'$

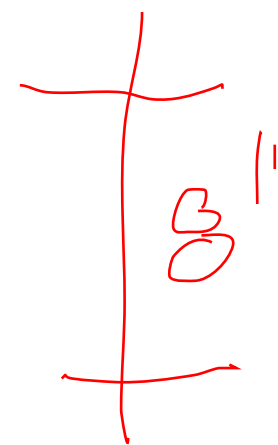
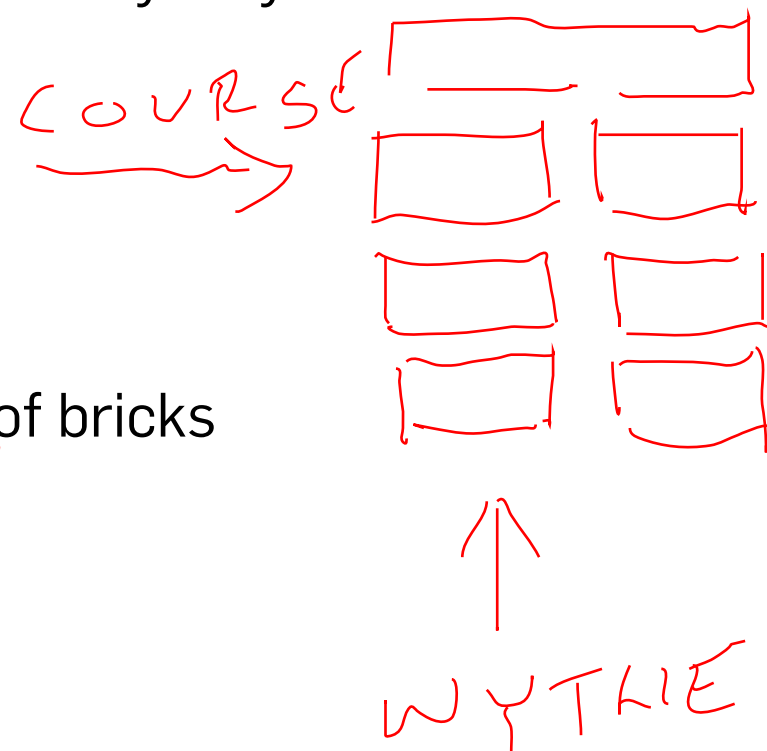


$2 \times 4 \quad 1\frac{1}{2} \times 3\frac{1}{2}$
 $2 \times 6 \quad 1\frac{1}{2} \times 5\frac{1}{2}$
 $2 \times 8 \quad 1\frac{1}{2} \times 7\frac{1}{4}$
 $10 \quad 9\frac{1}{4}$
 $12 \quad 11\frac{1}{4}$

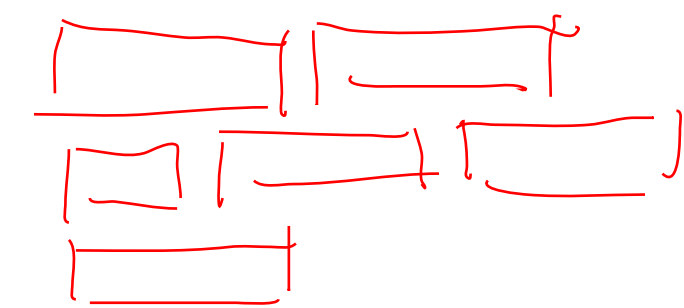
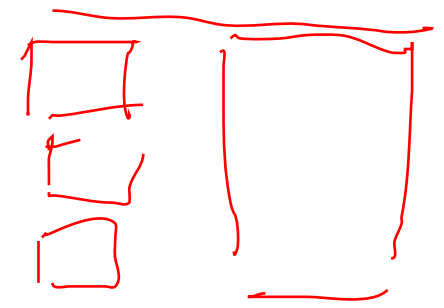
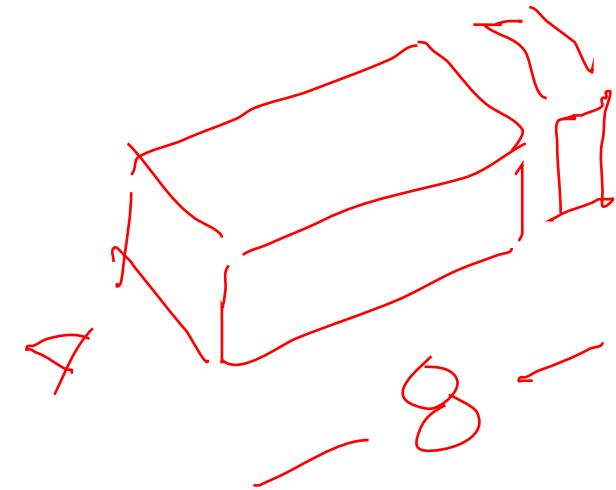
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4. You are estimating how many bricks you will need to order for a 48" wide, double wythe wall that is 32" tall wall for a part of a patio design. The bricks are normal, standard bricks. How many do you need?

- A. 72
- B. 144**
- C. a square of bricks
- D. 768



$12 \times 4 = 72$

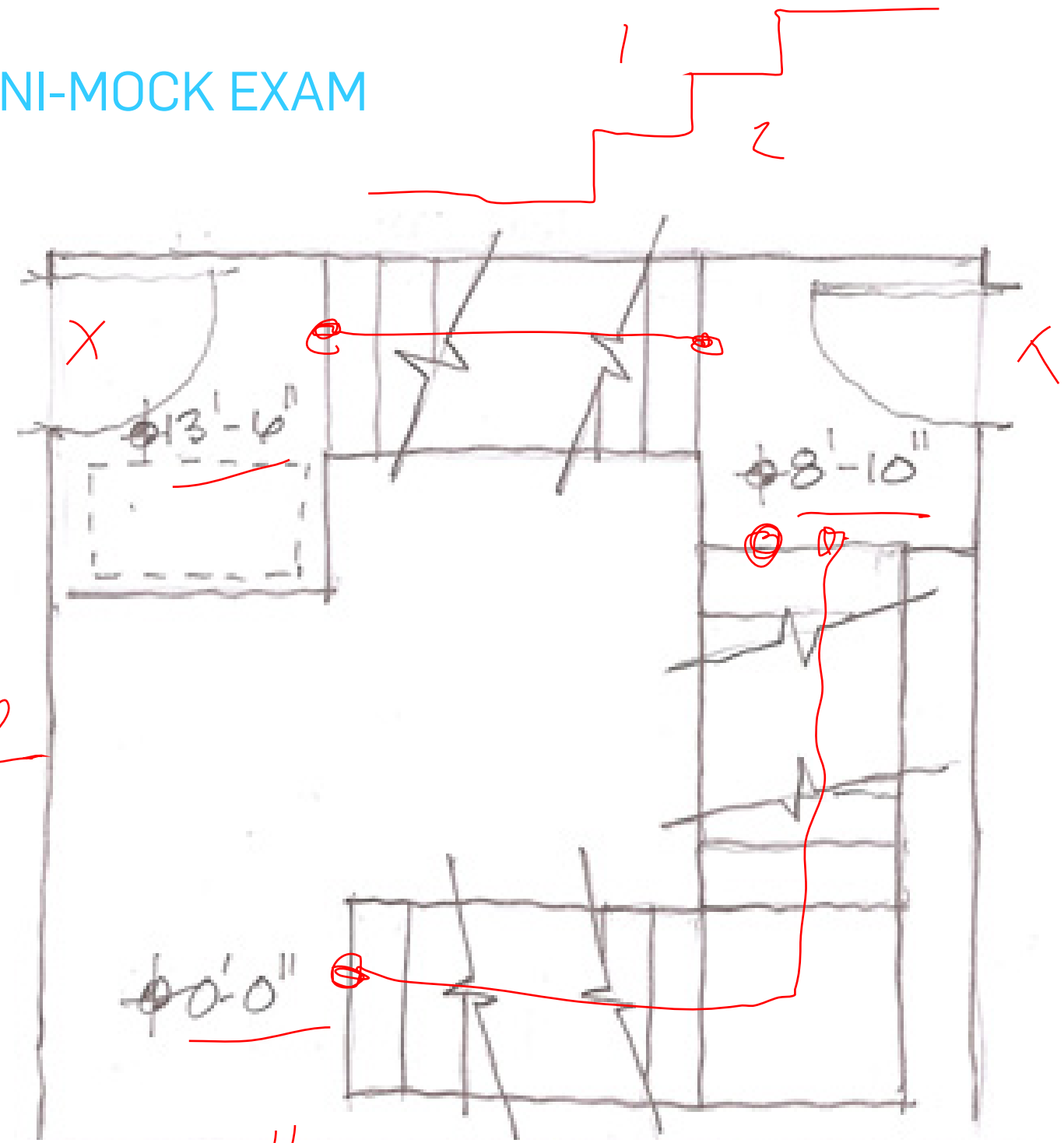


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5. How many risers are there in the sketch of the library stair:

- A. 24R
- B. 23R
- C. 22R
- D. 25R

$8' - 10'' \rightarrow 96 + 10 = 106''$
 $106 \div 7 = 15.14 \rightarrow 16R$
 $106 \div 16 = 6 \frac{5}{8}''$
 $13' - 6'' \rightarrow 156 + 6 = 162''$
 $162 - 106 = 56''$
 $56 \div 7 = 8$
 $8R @ 7''$



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6. What is the steel thickness range for light gauge cold rolled metal framing?

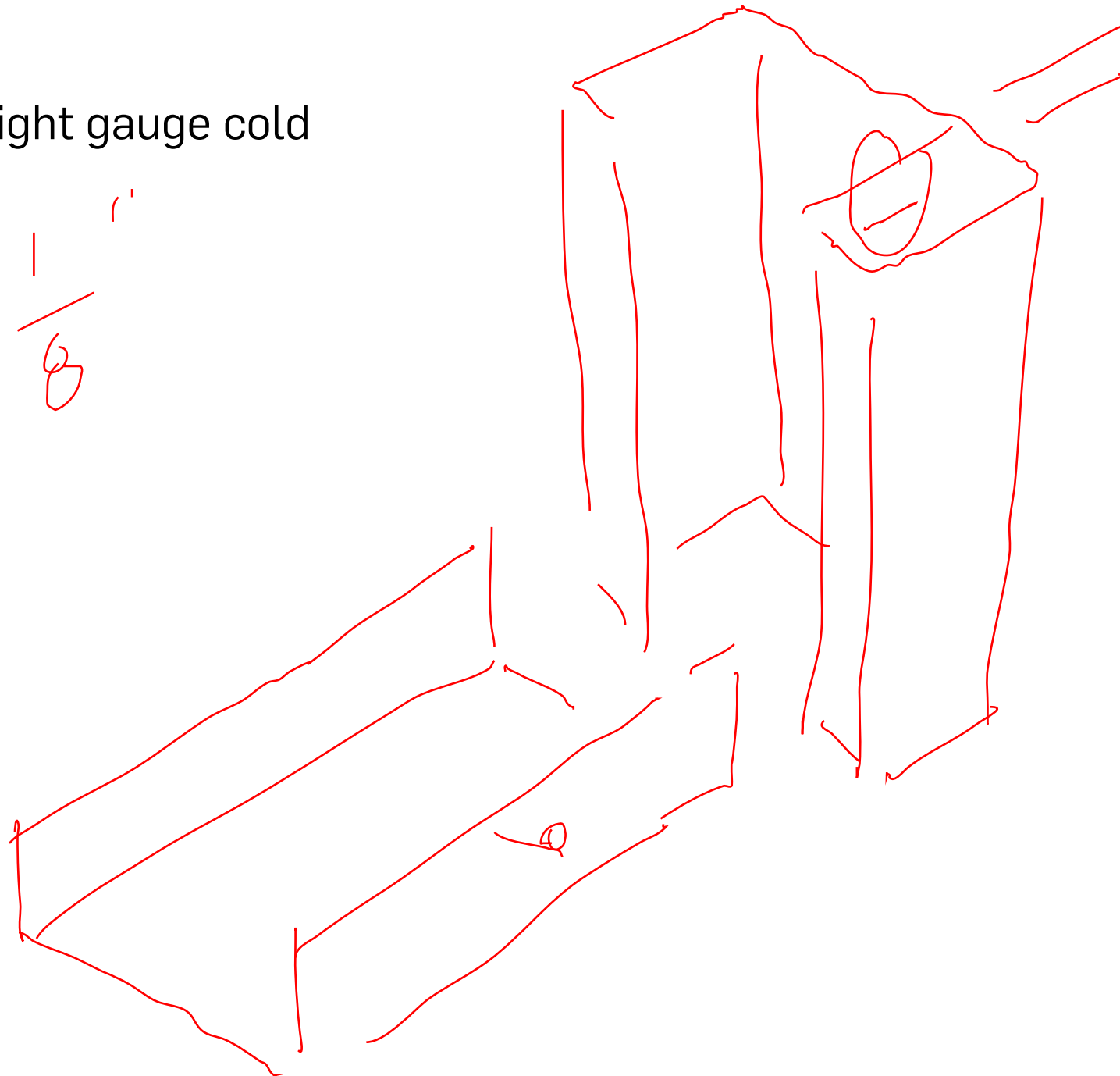
A. 30 gauge to 8 gauge

B. 20 gauge to 25 gauge.

C. 8 gauge to 1/8 inch

D. 12 gauge to 1/8 inch

$\frac{1}{30}$ " $\frac{1}{8}$ "



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7. Pozzolans are added to concrete mix for

_____.

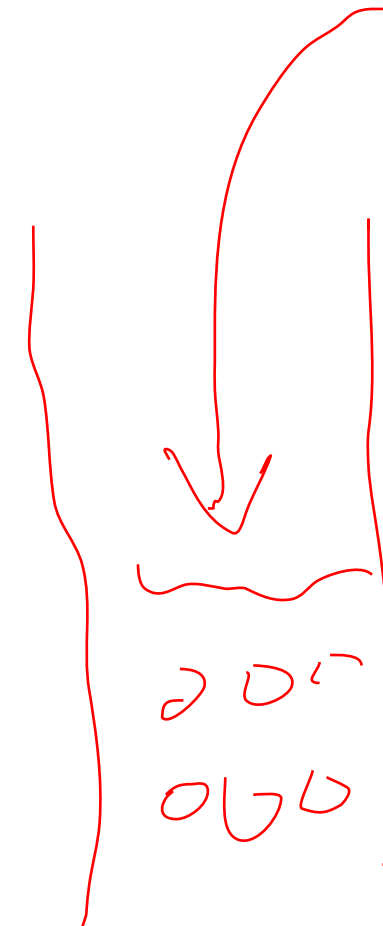
STRENGTH

#

Superplasticizers are added to concrete mix for

_____.

WORKABILITY



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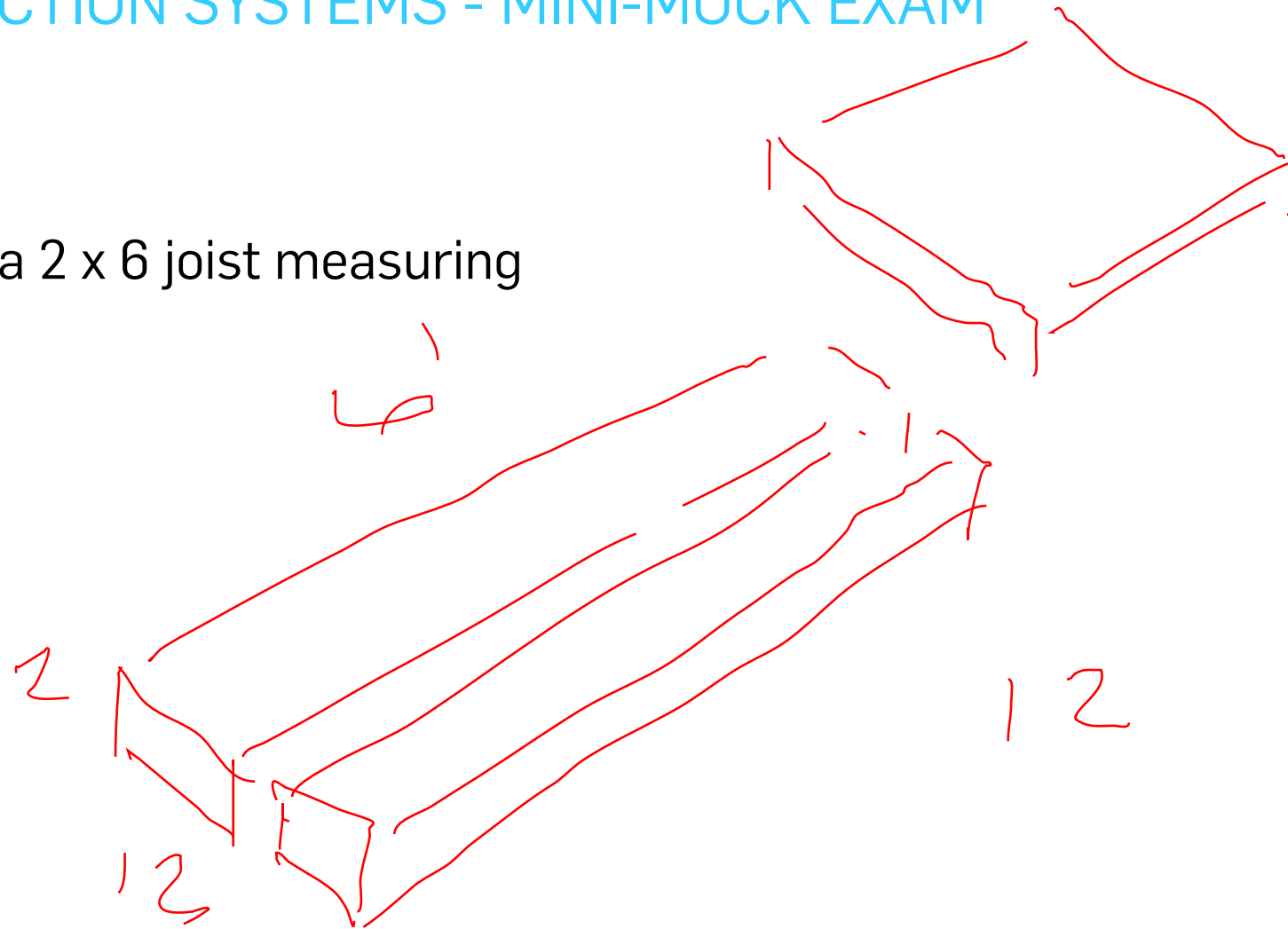
8. How many board feet is there in a 2 x 6 joist measuring 12 feet long?

A. 18 board feet

B. 12 board feet

C. 24 board feet

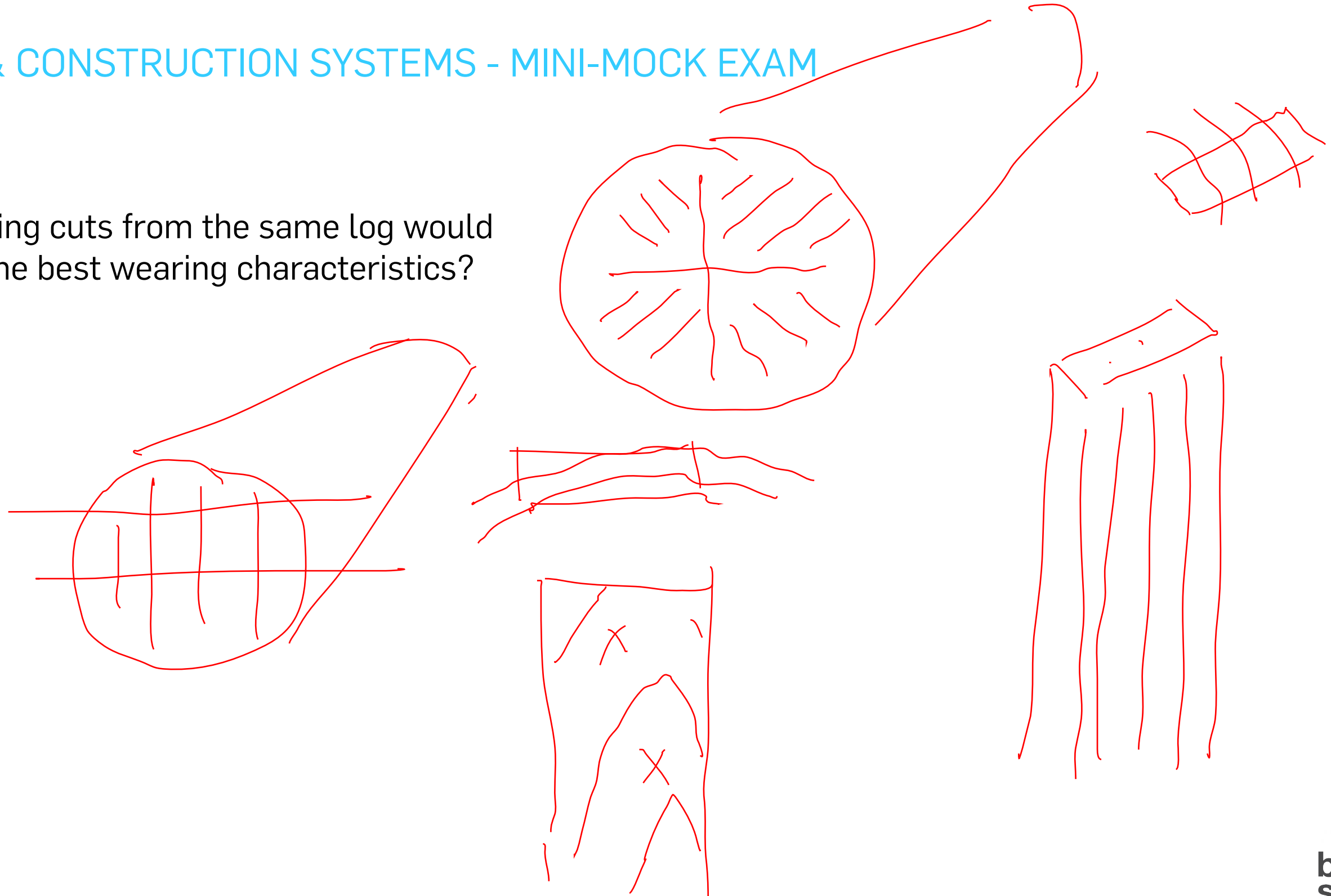
D. 20 board feet



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9. Which of the following cuts from the same log would produce flooring with the best wearing characteristics?

- A. Quarter sawn
- B. Plain sawn
- C. Rotary sawn
- D. Half round sawn



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10. Increasing the carbon content in steel has what effect?

A. Makes steel more flexible.

B. Makes steel less ductile.

C. Makes steel more corrosion resistant.

D. Makes steel easier to weld.

C. 1. 2% - 5%
3% 5%

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11. Which of the following is MOST characteristic of an end-bearing foundation element?

A. Timber piling

B. Belled Caisson

C. Steel micropile

D. Tapered precast concrete pile



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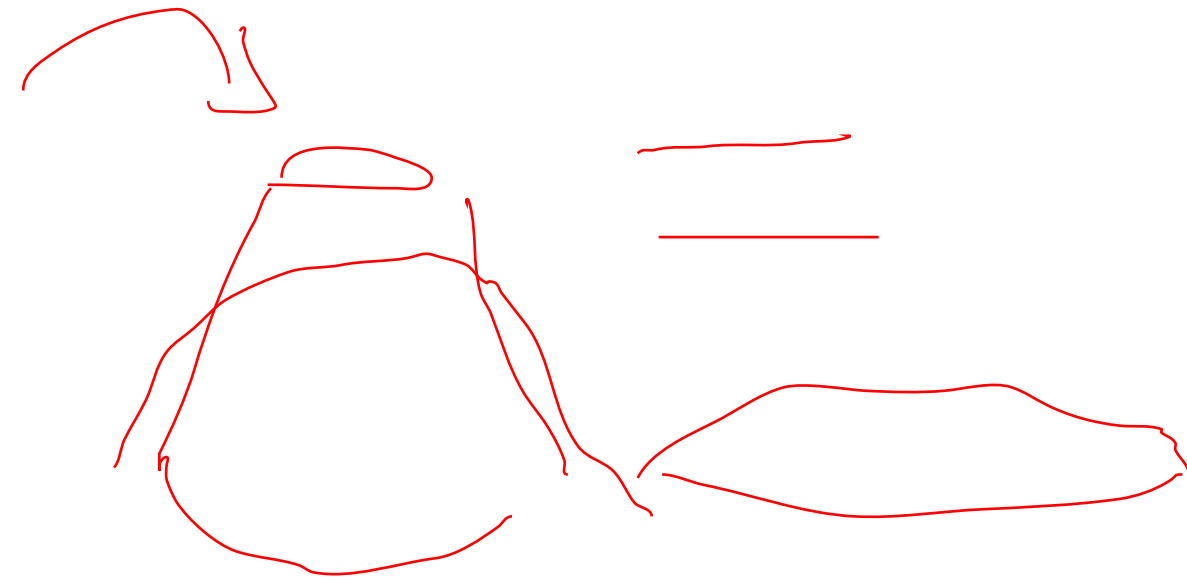
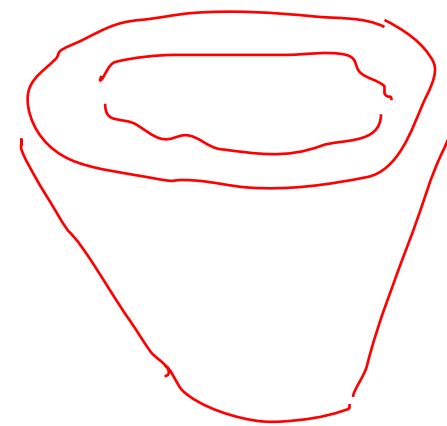
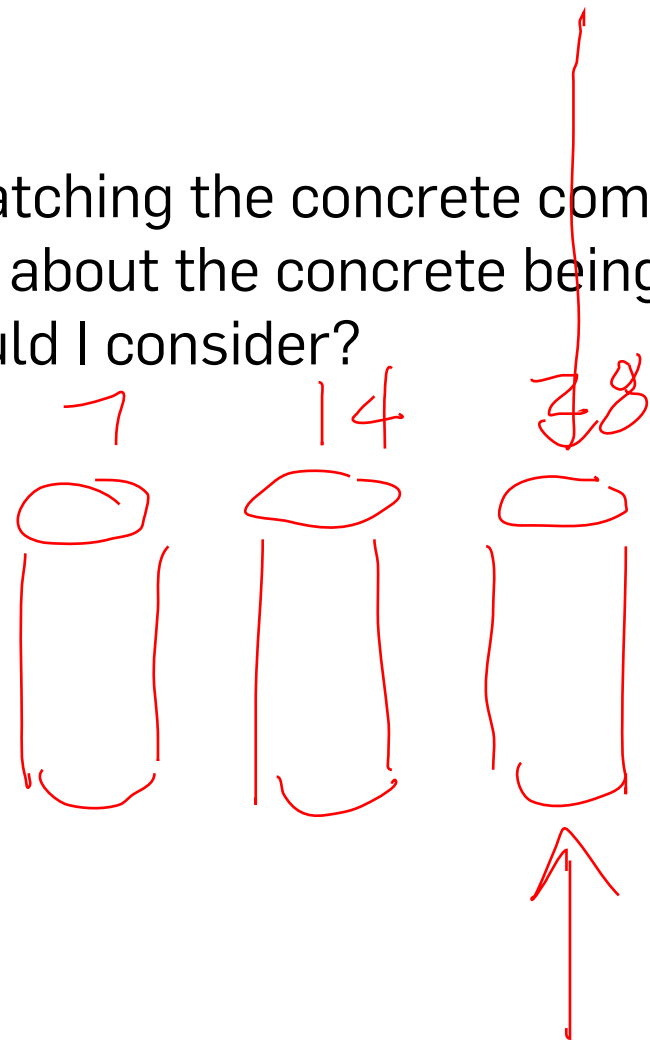
12. Standing at the jobsite watching the concrete coming out of the truck, I am worried about the concrete being too runny or wet, which test should I consider?

X A. Vane Shear Test

B. Cylindar Test

C. Slump Test

X D. ACT Test



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Questions?