

Scan

Name _____

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MATH EXTENSION—PROBLEM OF THE WEEK

INVESTIGATION 1: BONES

An after-school science club was studying owls. They discovered that owls live longer in captivity than they do in the wild. The barn owl lives about 16 years in the wild, and it lives three times longer in captivity. How long does the barn owl live in captivity?

Show your work and explain your answer.

The great horned owl lives 12 years less than the barn owl in captivity. How many years does the great horned owl live in captivity?

Show your work and explain your answer.

The great horned owl lives one-fourth fewer years in the wild than it does in captivity. How many years does the great horned owl live in the wild?

Show your work and explain your answer.

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INVESTIGATION 2: JOINTS

Can you pass your body through a sheet of paper, or even a half sheet of paper?

Cut a standard sheet of paper in a way that lets you pass right through the paper. If you can pass through a full sheet of paper, can you pass through a half sheet of paper?

(The trick is to make a hole in the paper big enough to pass over your body.)

Explain how you found the answer.

What method did you try first? _____

Was your first try successful? _____

What did you try second? _____

Was your second try successful? _____

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INVESTIGATION 3: MUSCLES

Weigh yourself.

Use the conversion scale to change pounds into kilograms.

My mass is _____ kg.

Bone mass is $\frac{1}{4}$ of the mass of a human body.

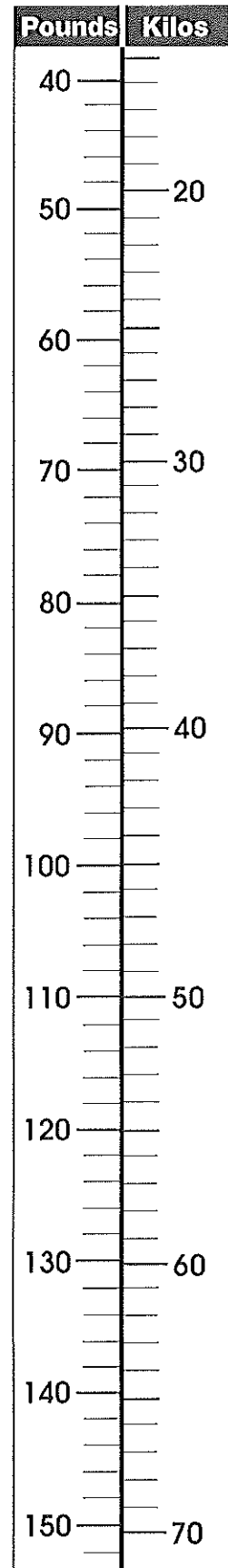
What is the mass of your bones? _____ kg

Show how you found out.

Muscle mass is $\frac{2}{5}$ of the mass of a human body.

What is the mass of your muscles? _____ kg

Show how you found out.



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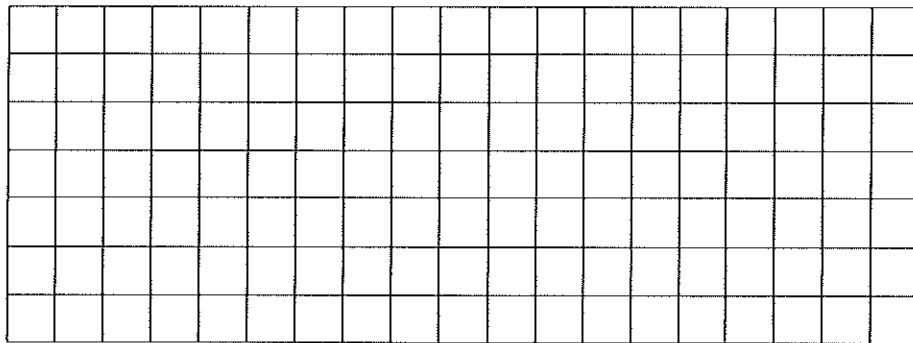
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INVESTIGATION 4: COORDINATION

Mr. Crane’s class was testing their arm/shoulder muscle strength by doing chair push-ups. Each student did as many push-ups as he or she could without resting. Here are the results.

| | | | | | | | |
|---------|----|---------|----|--------|----|-------|----|
| Lucy | 11 | Roberto | 15 | George | 17 | Julia | 14 |
| Mark | 16 | Scott | 15 | Jose | 14 | Danny | 16 |
| Jasmine | 15 | Lorinda | 12 | Kalen | 14 | Maria | 10 |
| Sai | 19 | Miguel | 20 | Kim | 16 | Mack | 17 |
| Alma | 14 | Willie | 18 | Fran | 15 | Caleb | 13 |

Graph the results.



What was the total number of push-ups done by the class? _____