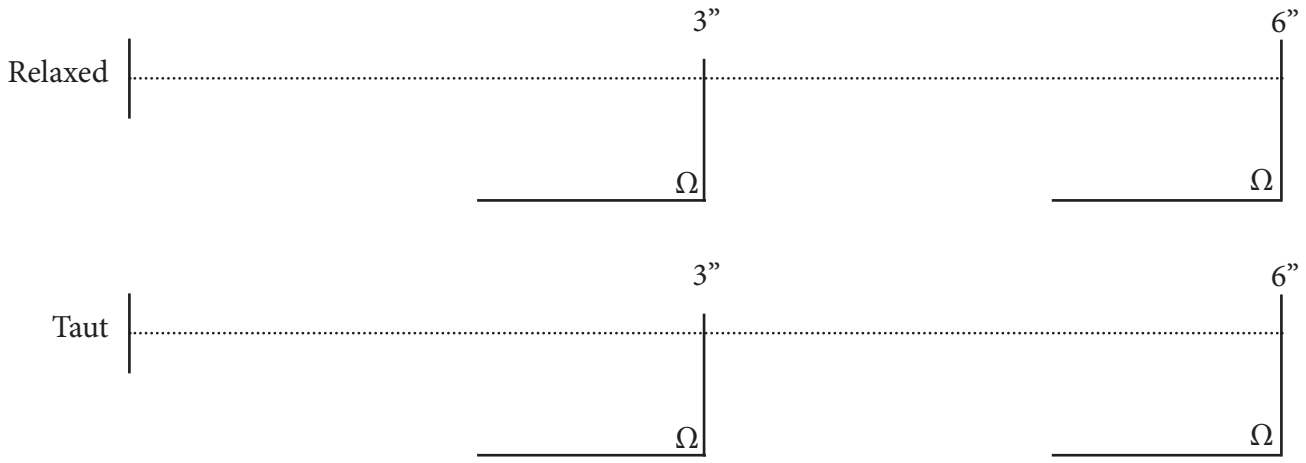
EXPERIMENTAL TEXTILES
Understanding Conductive Yarns

Name:

Sample 1: _____



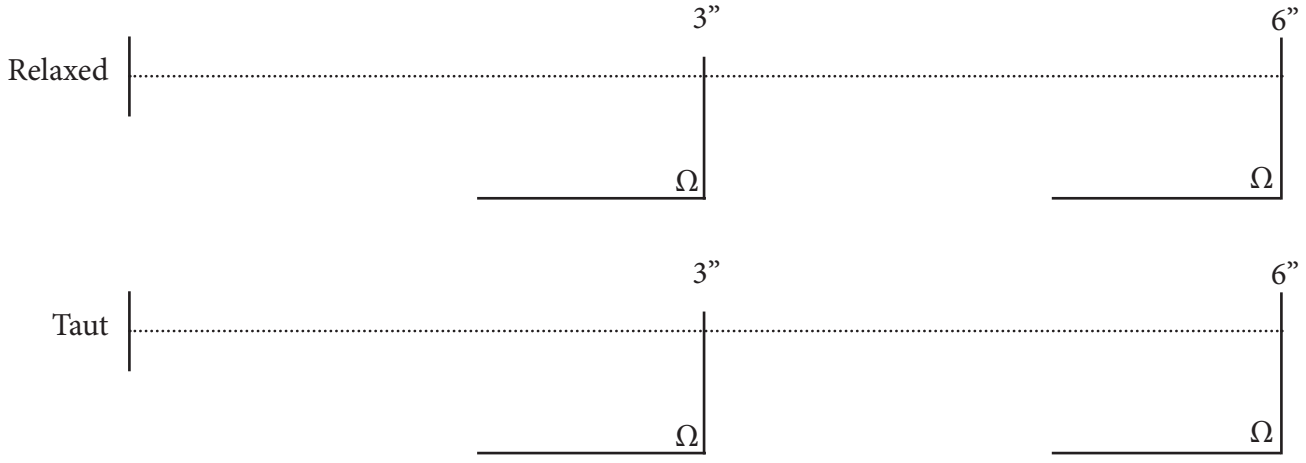
How does resistance change with length and tension? Why? Consider the structure of the yarn.

_____

_____

_____

Sample 2: _____



How does resistance change with length and tension? Why? Consider the structure of the yarn.

_____

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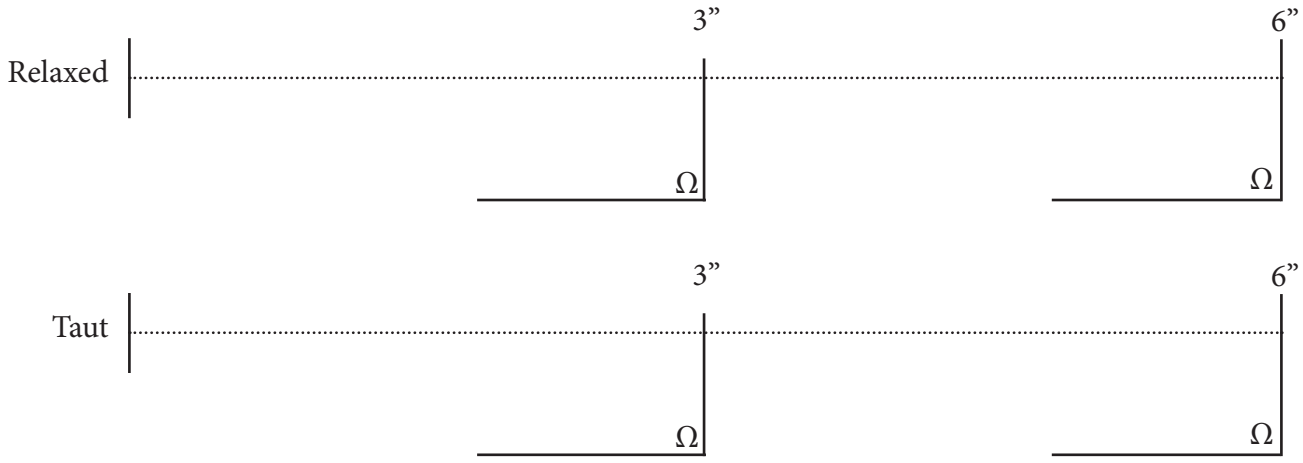
Sample 3: _____



How does resistance change with length and tension? Why? Consider the structure of the yarn.

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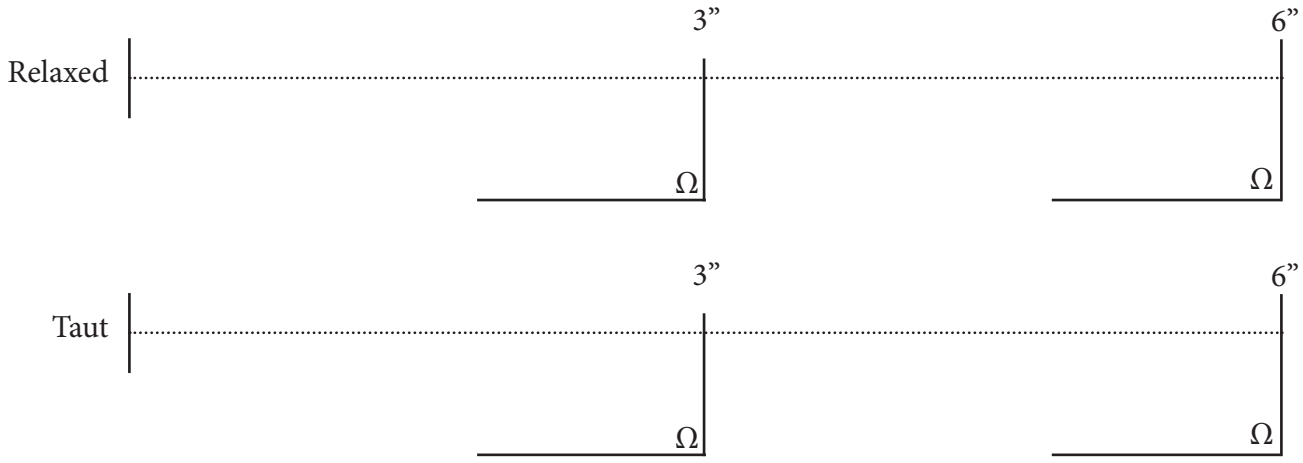
Sample 4: _____



How does resistance change with length and tension? Why? Consider the structure of the yarn.

_____

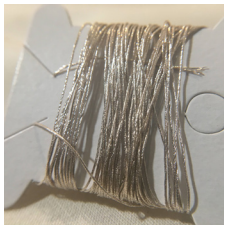
_____

_____

EXPERIMENTAL TEXTILES
Understanding Conductive Yarn Structures

The images below describe how the metal and non-metal elements of the yarn are oriented. This can help explain resistance behaviors. Each row contains an: image; generalized cross-section (with black representing metal and outlined representing non-metal); and a generalized drawing of the length of the structure

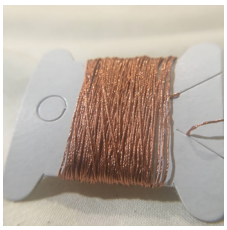
Karl Grimm Silver



filaments
wrapped in matal
then spun together

source: kobakant - https://www.kobakant.at/DIY/?p=8012

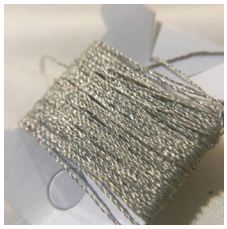
Karl Grimm Copper

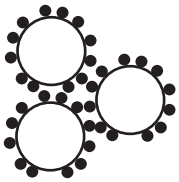


filaments
wrapped in matal
then spun together

source: kobakant - https://www.kobakant.at/DIY/?p=8012

Statex

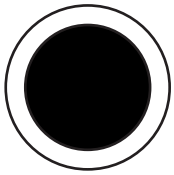




spun from synthetic
fibers or filaments,
then coated in thin
layer of metal

source: kobakant - https://www.kobakant.at/DIY/?p=8012

Magnet Wire / Silicone Coated Wire



continuous metal
filaments coated in
either silicone or
polyurathane

Spun Stainless

spun from
conductive
fibers or filaments

source: kobakant - https://www.kobakant.at/DIY/?p=8012