Домашнее задание учени\_\_\_ 8\_\_ класса \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Электрическое сопротивление. Расчет сопротивления проводника.**

**Задание 1.** Переведите в систему СИ.

25 мкОм = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 43мОм\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1,5 кОм = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 0,06МОм\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Задание 2. Используя текст учебника, заполните пропуски в тексте и ответьте на вопросы.**

Причиной сопротивления является \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ движущихся электронов с ионами кристаллической решетки.

Сопротивление проводника зависит от его \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ и \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, а также от \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, из которого он изготовлен.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - это физическая величина, которая определяет сопротивление проводника из данного вещества длиной \_\_\_\_м, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1 м2.

Единицами измерения удельного сопротивления является \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Из всех металлов наименьшим удельным сопротивлением обладают \_\_\_\_\_\_\_\_\_\_\_\_\_\_ и \_\_\_\_\_\_\_\_\_\_\_\_\_. Следовательно, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ и \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ проводники электричества.

Как сопротивление проводника зависит от числа столкновений электронов с ионами, находящимися в узлах кристаллической решетки?

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**Задание 3. Решите задачу**

Как измениться сопротивление проволоки, если площадь ее поперечного сечения уменьшить в 2 раза, не меняя ее длины?

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**Задание 4. Решите задачу**

Какой длины надо взять железную проволоку площадью поперечного сечения 2 мм2, чтобы ее сопротивление было таким же, как сопротивление алюминиевой проволоки длиной 1 км и сечением 4 мм2?

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**Задание 5. Ответьте на вопросы теста.**

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