

**Комплексное задание I уровня**  
**ТЕОРЕТИЧЕСКОЕ ОЛИМПИАДНОЕ ЗАДАНИЕ**  
**по специальности СПО**  
**08.02.01 «Строительство и эксплуатация зданий и сооружений»**

New Building Materials

1) Translate the text from English into Russian. Перевести текст (со словарем) на русский язык.

Because concrete does not resist tension well, a system is now in use in which it is not stretched. This is not as difficult to arrange as it seems to be. The concrete beam is compressed along its length by means of steel rods inside it; these rods remain in the beam and therefore the concrete is always compressed unless some greater force tries to pull it apart. As long as the beam is not lengthened more than it is already compressed, the concrete will never be in tension.

Suppose, for example, that the compression in the concrete (caused by the steel rods) is 1,000 pounds per square inch and that the force pulling the beam lengthways when it is in position is 700 pounds per square inch. In that case the concrete is still compressed by a force equal to 300 pounds per square inch, and so it is not in tension at all.

Vocabulary

is supported at each end – имеет опоры на концах

in tension – в состоянии растяжения

will grip the concrete – схватят бетон

does not resist tension well – довольно плохо сопротивляется растяжению

pulling the beam lengthways – растягивающая балку в продольном направлении

it is not in tension at all – совсем без растяжения

reinforced concrete ferro-concrete – железобетон

prestressed concrete – предварительно-напряженный бетон

2) Match the English words and their Russian equivalents: даны в таблице технические слова, правильно расставить соотношение перевода слов.

1. nut	a. балка
2. hooked ends	b. сгибать
3. rods	c. арматура
4. to bend	d. загнутые концы
5. beam	e. сжатие
6. screw	f. растяжение
7. compression	g. гайка
8. tension	h. болт