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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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Стоимость перевозки и грузоподъемность автомобилей для каждого перевозчика указана в таблице. Сколько рублей придется заплатить за самую дешевую перевозку?   |  |  |  | | --- | --- | --- | | **Перевозчик** | **Стоимость перевозки одним автомобилем  (руб. на 100 км)** | **Грузоподъемность автомобилей  (тонн)** | | А | 3200 | 3,5 | | Б | 4100 | 5 | | В | 9500 | 12 | |  |  |  |  | | --- | --- | --- | | **2** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | Интернет-провайдер (компания, оказывающая услуги по подключению к сети Интернет) предлагает три тарифных плана.   |  |  |  | | --- | --- | --- | | **Тарифный план** | **Абонентская плата** | **Плата за трафик** | | План "0" | Нет | 2,5 руб. за 1 Мб | | План "500" | 550 руб. за 500 Мб трафика в месяц | 2 руб. за 1 Мб сверх 500 Мб | | План "800" | 700 руб. за 800 Мб трафика в месяц | 1,5 руб. за 1 Мб сверх 800 Мб |   Пользователь предполагает, что его трафик составит 600 Мб в месяц, и исходя из этого выбирает наиболее дешевый тарифный план. Сколько рублей заплатит пользователь за месяц, если его трафик действительно будет равен 600 Мб? |  |  |  |  | | --- | --- | --- | | **3** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | Для остекления музейных витрин требуется заказать 20 одинаковых стекол в одной из трех фирм. Площадь каждого стекла 0,25 {\textrm{м}^{2}}. В таблице приведены цены на стекло и на резку стекол. Сколько рублей будет стоить самый дешевый заказ?   |  |  |  |  | | --- | --- | --- | --- | | **Фирма** | **Цена стекла  (руб. за 1 {\textrm{м}^{2}})** | **Резка стекла  (руб. за одно стекло)** | **Дополнительные условия** | | A | 300 | 17 |  | | Б | 320 | 13 |  | | В | 340 | 8 | При заказе на сумму больше 2500 руб. резка бесплатно. | |  |  |  |  | | --- | --- | --- | | **4** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | Клиент хочет арендовать автомобиль на сутки для поездки протяженностью 500 км. В таблице приведены характеристики трех автомобилей и стоимость их аренды. Помимо аренды клиент обязан оплатить топливо для автомобиля на всю поездку. Какую сумму в рублях заплатит клиент за аренду и топливо, если выберет самый дешевый вариант?   |  |  |  |  | | --- | --- | --- | --- | | **Автомобиль** | **Топливо** | **Расход топлива  (л на 100 км)** | **Арендная плата  (руб. за 1 сутки)** | | А | Дизельное | 7 | 3700 | | Б | Бензин | 10 | 3200 | | В | Газ | 14 | 3200 |   Цена дизельного топлива — 19 рублей за литр, бензина —- 22 рублей за литр, газа — 14 рублей за литр. | | | http://mathege.ru/ROOT/images/spacer.gif | |
| http://mathege.ru/ROOT/images/spacer.gif |
| |  |  |  | | --- | --- | --- | | |  | | --- | |  | | http://mathege.ru/ROOT/images/spacer.gif | |
| http://mathege.ru/ROOT/images/spacer.gif |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | **5** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | От дома до дачи можно доехать на автобусе, на электричке или на маршрутном такси. В таблице показано время, которое нужно затратить на каждый участок пути. Какое наименьшее время потребуется на дорогу? Ответ дайте в часах.   |  |  |  |  | | --- | --- | --- | --- | |  | **1** | **2** | **3** | | Автобусом | От дома до автобусной  станции — 15 мин. | Автобус в пути:  2 ч 15 мин. | От остановки автобуса  до дачи пешком 5 мин. | | Электричкой | От дома до станции железной  дороги — 25 мин. | Электричка в пути:  1 ч 45 мин. | От станции до дачи  пешком 20 мин. | | Маршрутным такси | От дома до остановки маршрутного  такси — 25 мин. | Маршрутное такси в дороге:  1 ч 35 мин. | От остановки маршрутного такси  до дачи пешком 40 мин. | |  |  |  |  | | --- | --- | --- | | **6** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | В таблице даны условия банковского вклада в трех различных банках. Предполагается, что клиент кладет на счет 10000 рублей на срок 1 год. В каком банке к концу года вклад окажется наибольшим? В ответе укажите сумму этого вклада в рублях.   |  |  |  | | --- | --- | --- | | **Банк** | **Обслуживание счета\*** | **Процентная ставка  (% годовых)\*\*** | | Банк А | 40 руб. в год | 2 | | Банк Б | 8 руб. в месяц | 3,5 | | Банк В | Бесплатно | 1,5 |   \* В начале года или месяца со счета снимается указанная сумма в уплату за ведение счета  \*\* В конце года вклад увеличивается на указанное количество процентов. | | | http://mathege.ru/ROOT/images/spacer.gif | |
| http://mathege.ru/ROOT/images/spacer.gif |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | **7** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | В первом банке один фунт стерлингов можно купить за 47,4 рубля. Во втором банке 30 фунтов — за 1446 рублей. В третьем банке 12 фунтов стоят 561 рубль. Какую наименьшую сумму (в рублях) придется заплатить за 10 фунтов стерлингов? | | | http://mathege.ru/ROOT/images/spacer.gif | |
| http://mathege.ru/ROOT/images/spacer.gif |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | **8** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | В среднем гражданин А. в дневное время расходует 120 кВт\cdotч электроэнергии в месяц, а в ночное время — 185 кВт\cdotч электроэнергии. Раньше у А. в квартире был установлен однотарифный счетчик, и всю электроэнергию он оплачивал по тарифу 2,40 руб. за кВт\cdotч. Год назад А. установил двухтарифный счётчик, при этом дневной расход электроэнергии оплачивается по тарифу 2,40 руб. за кВт\cdotч, а ночной расход оплачивается по тарифу 0,60 руб. за кВт\cdotч.  В течение 12 месяцев режим потребления и тарифы оплаты электроэнергии не менялись. На сколько больше заплатил бы А. за этот период, если бы не поменялся счетчик? Ответ дайте в рублях. |  |  |  |  | | --- | --- | --- | | **9** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | Вася загружает на свой компьютер из Интернета файл размером 30 Мб за 28 секунд. Петя загружает файл размером 28 Мб за 24 секунды, а Миша загружает файл размером 38 Мб за 32 секунды. Сколько секунд будет загружаться файл размером 665 Мб на компьютер с наибольшей скоростью загрузки? | | | http://mathege.ru/ROOT/images/spacer.gif | |
| http://mathege.ru/ROOT/images/spacer.gif |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | **10** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | Независимое агентство каждый месяц определяет рейтинги Rновостных сайтов на основе показателей информативности In, оперативности Opи объективности Trпубликаций. Каждый отдельный показатель оценивается целыми числами от -2 до 2. Итоговый рейтинг вычисляется по формуле  R=25 \cdot \left( \frac{2In+Op+3Tr}{6} + 2 \right).  В таблице даны оценки каждого показателя для нескольких новостных сайтов. Определите наивысший рейтинг новостных сайтов, представленных в таблице. Запишите его в ответ, округлив до целого числа.   |  |  |  |  | | --- | --- | --- | --- | | **Сайт** | **Информативность** | **Оперативность** | **Объективность** | | VoKak.ru | 2 | -1 | 0 | | NashiNovosti.com | -2 | 1 | -1 | | Bezvrak.ru | 2 | 2 | 0 | | Zhizni.net | -1 | -1 | -2 | |  |  |  |  | | --- | --- | --- | | **11** |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | | | Рейтинговое агентство определяет рейтинг соотношения «цена-качество» микроволновых печей. Рейтинг вычисляется на основе средней цены Pи оценок функциональности F, качества Qи дизайна D. Каждый отдельный показатель оценивается экспертами по 5-балльной шкале целыми числами от 0 до 4. Итоговый рейтинг вычисляется по формуле  R=8\left(F+Q\right)+4D-0,01P.  В таблице даны оценки каждого показателя для нескольких моделей печей. Определите, какая модель имеет наивысший рейтинг. В ответ запишите значение этого рейтинга.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Модель печи** | **Средняя цена** | **Функциональность** | **Качество** | **Дизайн** | | А | 1900 | 1 | 1 | 1 | | Б | 5900 | 4 | 1 | 2 | | В | 3800 | 0 | 0 | 1 | | Г | 4100 | 2 | 0 | 4 | | | | http://mathege.ru/ROOT/images/spacer.gif | | | http://mathege.ru/ROOT/images/spacer.gif | | http://mathege.ru/ROOT/images/spacer.gif |