



串联、并联电路复习指导

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二、含电表的电路的识别

在不少电路中有电流表和电压表,这使得原本就不易识别的电路看起来更加复杂。为此首先应将电表摘去,摘表的原则:电流表当作导线,电压表当作断路。如此摘表不影响电路中各用电器的连接方式。而在判断各表所测的物理量时,将表依次放回,再进行识别。

例1:请画出图9所示电路的等效电路图,并说明电流表和电压表所测的物理量。若将电压表全部换成电流表,则电路的连接方式如何?各电流表所测的物理量是什么?

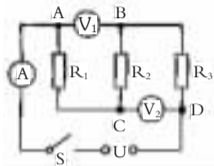


图9

分析:(1)在图9中,标出电路图的关键点A、B、C、D。

(2)摘表:把电流表当作导线,电压表视为断路。(如图9(甲)所示)

(3)等效电路图(如图9(乙)所示)三电阻串联。

(4)将电流表、电压表复位。由电路图9(丙)可知,电流表测串联电路中的电流, V_1

测 R_1 与 R_2 的电压和, V_2 测 R_2 与 R_3 的电压和。

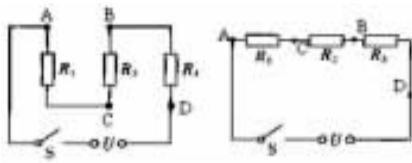


图9(甲)

图9(乙)

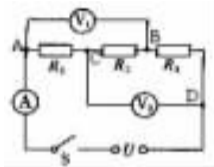


图9(丙)

若将图中的电压表全部换成电流表,则电路如图10所示:

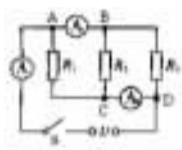


图10

(1)在图10中,标出电路图的关键点A、B、C、D。

(2)摘表:把电流表当作导线。(如图10(甲)所示)

(3)A、B两点用导线连接,可视为同一点,C、D可视为同一点,则等效电路图(如

图10(乙)所示)三电阻并联。

(4)将电流表复位。如图10(丙),设左侧为电源正极,右侧为电源负极,标出电流路径(如图10(丁)),电流从电源正极出发,流经电流表A后,在A点分为两路,一路经过 R_1 到达C点,另一路经过电流表 A_1 后,在B点分为两路,一路经过 R_2 到达C点,一路经过 R_3 到达D点,流经 R_1 与 R_2 两条支路电流在C点汇合后流过电流表 A_2 ,在D点与通过 R_3 的支路电流汇合,一起回到电源的负极。电流表A测三条支路的总电流, A_1 测 R_2 和 R_3 的电流和, A_2 测 R_1 和 R_2 的电流和。

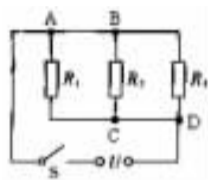


图10(甲)

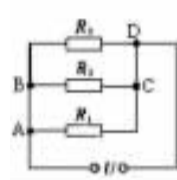


图10(乙)

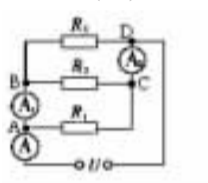


图10(丙)

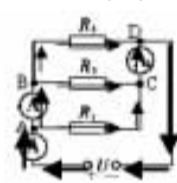


图10(丁)

(未完待续)

人教版(单元检测题)

Unit 1 How do you study for a test?

首都师范大学附属中学教师 马丽娟

(续10月14日第499期)

B

"Jane, please let me borrow a dollar," Jenny asked as they stood in the school lunch line. "I have one in my jacket, but I don't want to 25 and lose my place." "OK," agreed Jane.

Jane waited all day for Jenny to 26 back the dollar she borrowed, but Jenny always seemed to be very busy. "She's just forgotten," thought Jane. "I don't 27 to make her angry." Still, her money didn't go 28. Some classmates, like Jenny, were getting five dollars a week.

Weeks went by. At last Jane got up enough courage (勇气) to tell her about the 29.

"Oh Jane, I 30!" Jenny said. "I'll bring the dollar tomorrow." The next day Jenny seemed to have forgotten again. During the noon hour Jane saw her 31 sweets for Mary and Ann. Jenny saw Jane looking at her. 32 she said something in a low voice to the other two girls. Jane felt bad and asked her teacher if she could go back to the 33. In the classroom, Jane saw two new pencils in Jenny's desk. An 34 came to her.

"Jenny's not 35 lately, and anyway, she really owes (欠) me. Besides, she has 36 money to buy more. A dollar doesn't mean anything to her, but it means a lot to me."

- 25. A. stay B. wait
- C. leave D. take
- 26. A. return B. lend
- C. take D. pay
- 27. A. want B. mind
- C. know D. back
- 28. A. up B. on
- C. far D. back

- 29. A. money B. lunch
- C. place D. classmate
- 30. A. used B. forgot
- C. understood D. thought
- 31. A. borrowing B. making
- C. selling D. buying
- 32. A. Even B. Again
- C. Then D. Instead
- 33. A. office B. classroom
- C. shop D. school
- 34. A. end B. answer
- C. idea D. example
- 35. A. busy B. pleased
- C. healthy D. kind
- 36. A. little B. enough
- C. many D. all

三、阅读理解(每题2分,共24分)

阅读下列三篇文章,根据文章内容,从所给的A、B、C、D四个选项中选出最佳选项。

A

(CCTV 9, October 16, 2003)

CHINA launched its first manned spaceship into space at 9 yesterday morning. Yang Liwei, 38, is the first spaceman of China. He was chosen from 14 pilots after many difficult tests. The ship circled the earth 14 times in about 20 hours.

CHINA will send two more astronauts into space next year. This time, they will stay up there for five to seven days testing the spaceship. Fourteen astronauts are now training for the trip. Last October, Shenzhou V made China the third nation to send a man into space.

(China Daily, April 6, 2004)

THE 2008 Olympic Games will get some help from space. Next May, China will send a small satellite into space. It will watch the Olympic venues (场馆) as people build them. The satellite will also help us to keep the environment clean. It will stay in space for 5 years.

(www.yahoo.com May 2004)

根据以上三则新闻内容,选择最佳答案。

- 37. How many countries sent spaceship with man into space?
A. One B. Three
C. Two D. Four
- 38. How long did Yang Liwei stay in the space?
A. Seven days
B. Five years
C. About five days
D. About twenty hours
- 39. When will China send up a satellite into space to watch the Olympic venues?
A. In May, 2005
B. In April, 2008
C. In April, 2005
D. In May, 2008
- 40. According to (根据) the news above, which is right?
A. China will send two more astronauts into space in 2006.
B. Shenzhou V was sent up into space on Oct. 15, 2003.
C. China has sent a spaceship with two people into space.
D. The satellite will only help us to keep the environment clean.

(未完待续)

中学生优秀作文及点评

祖国日日新 小院变化大

北京市第三十五中学初三学生 郭睿纯

这天,妈妈给我看了一张她儿时的照片。几棵古老的槐树映衬着灰色的掉了漆的大门,还有两个石狮子门墩儿;妈妈和大姨两人站在门口,手里都拿着一本毛主席语录。

"啊,这不就是我曾祖母家的门前嘛!"我兴奋地嚷着。

我的曾祖母家在东直门内北新桥一条很窄的胡同里,是一个小却很地道的北京四合院,"三山一井四棵槐"样样具备。别看胡同又深又窄,小院也不算宽敞,可这里住着我家五代人!小院也承载了很多的辛酸往事。

姥爷小的时候家里没有太多的家具,除了床以外,最值钱的就是那张硬木八仙桌和两把太师椅了;还有两只樟木箱子,是值得大人小孩儿炫耀的。那时候,家里没有自来水,姥爷和他的弟弟只能到很远的自来水站担水,每次要担十几桶才能把家里的两个大水缸装满。冬天到了,水站周围结了冰,溜滑溜滑的;到了夏天,水站泥泞汪着脏水,打水的人必须小心翼翼,不然就会踩进泥坑里。姥爷上学时,学校离家很远,每天要步行往返两趟,中午回家,就吃一个烤在炉子上的焦脆的窝头。他们上学要自备小课桌。学校冬天没有取暖设施,学生要背着煤球和柴火,自己生火取暖……姥爷一讲这些往事就滔滔不绝,以至于我都能背下来了。

"我们那会儿,日子过得苦中有甜呢!"妈妈意味深长地说。

她的童年是在上世纪70年代,家家生活都比较困难,吃的用的都要凭票,什么粮票、布票、油票……还要有一个副食本,姥姥要为家里所有成员一个月的生活精打细算。只有到了春节,孩子们才会添一件新衣。妈妈是老二,到了春节也只能添一件我大姨穿小的旧衣服。不过,家里安上了自来水管,不用跑那么远去担水了,学校条件也好多了。妈妈那时写完作业就带着两个弟弟玩儿。夏天,他们在胡同里放风筝、捉蜻蜓,冬天他们跳皮筋、推铁圈、抖空竹,直到天黑,听到大人们喊名字才肯回家。说起这些事儿,妈妈也是一脸的幸福。她说,那时她的皮筋是胡同里跳得最棒的。

许多年过去了,今天妈妈带我又来到这个小院儿。周围的高楼大厦中间夹着这条小胡同。没有了姥爷天天打水的自来水站,也没有了妈妈小时那些破旧的小平房了,取而代之的是一片干净整洁的灰色小院,不仅具有现代化居住设施,还保留了老北京的传统韵味。这是前不久刚刚翻修改建的,这古老的巷子又焕发了新的生机。艳阳高照,秋风飒爽,在古槐下,我不禁拿起手中的数码相机,拍下了这座我既熟悉又陌生的小四合院。

看着眼前一幅幅新旧胡同的照片,想着姥爷和妈妈并不富裕的童年,我真正感觉到:自己生活在"蜜罐儿"里。60年了,祖国在发展变化,人民的生活水平提高了。作为一个"90后",我感到无比自豪和幸福,同时,我也相信"我们祖国的明天将更加强盛!"

点评

本文内容充实,饱含情感。小作者通过对新旧胡同照片的对比回忆,生动具体地写出祖国60年的变化。特别是对"吃水"问题的描写,令读者感受真切。正因为小作者"言之有物",才使这篇文章具有感人的力量。

(指导教师 刘雪倩)