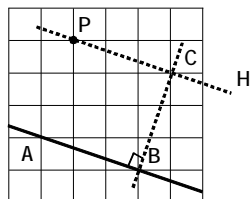


## 二、填空题

11.  $57^\circ$   
12. 真命题  
13. 垂线段最短  
14. ③④  
15.  $25^\circ$   
16. 540 平方米  
17.  $115^\circ$   
18.  $90^\circ$ ,  $105^\circ$  和  $150^\circ$

## 三、解答题

19. 解: (1)(2) 如图所示:



(第 19 题图)

(3)  $CB \perp CP$ .

20. 解: ①若  $\angle 1 = \angle 2$ ,

则  $AD \parallel CB$  (内错角相等, 两直线平行);

若  $\angle DAB + \angle ABC = 180^\circ$ ,

则  $AD \parallel BC$  (同旁内角互补, 两直线平行).

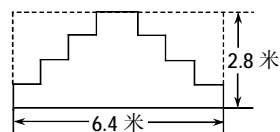
②当  $AB \parallel CD$  时,

$\angle C + \angle ABC = 180^\circ$  (两直线平行, 同旁内角互补);

③当  $AD \parallel BC$  时,

$\angle 3 = \angle C$  (两直线平行, 同位角相等).

21. 解: 如图:



(第 21 题图)

利用平移线段, 把台阶的横竖向上向左平移, 构成一个长方形, 长、宽分别为 6.4 米, 2.8 米,

$\therefore$  地毯的长度为  $6.4 + 2.8 + 2.8 = 12$  米, 地毯的面积为  $12 \times 3 = 36$  (平方米).

$\therefore$  买地毯至少需要  $36 \times 40 = 1440$  (元).

答: 买地毯需要 1440 元.

22. 解: (1) 如果 ①②, 那么 ③;

如果 ①③, 那么 ②;

如果 ②③, 那么 ①.

(2) 答案不唯一, 如:

已知:  $AD \parallel BC$ ,  $\angle B = \angle C$ .

求证:  $AD$  平分  $\angle EAC$ .

证明:  $\therefore AD \parallel BC$ ,

$\therefore \angle DAE = \angle B$ ,  $\angle DAC = \angle C$ .

$\therefore \angle B = \angle C$ ,

$\therefore \angle DAE = \angle DAC$ .

$\therefore AD$  平分  $\angle EAC$ .

23. 解: 证明: (1)  $\therefore EB \perp EF$ ,

$\therefore \angle FEB = 90^\circ$ .

又  $\therefore \angle DEF + \angle BEG = 180^\circ - 90^\circ =$

$90^\circ$ ,  $\angle EBG + \angle BEG = 90^\circ$ ,

$\therefore \angle DEF = \angle EBG$ .

(2)  $AB \parallel EF$ . 理由如下:

$\therefore EF$  平分  $\angle AED$ ,

$\therefore \angle AEF = \angle DEF = \frac{1}{2} \angle AED$ .

$\therefore \angle EBG = \angle A$ ,  $\angle DEF = \angle EBG$ ,

$\therefore \angle A = \angle DEF$ .

$\therefore \angle A = \angle AEF$ .

$\therefore AB \parallel EF$ .

24. 解: (1)  $\therefore CB \parallel OA$ ,

$\therefore \angle BOA + \angle B = 180^\circ$ .

$\therefore \angle BOA = 180^\circ - 120^\circ = 60^\circ$ .

$\therefore \angle FOC = \angle AOC$ .  $OE$  平分  $\angle BOF$ ,

$\therefore \angle EOC = \angle EOF + \angle FOC =$

$\frac{1}{2} \angle BOF + \frac{1}{2} \angle FOA = \frac{1}{2} (\angle BOF + \angle FOA) = \frac{1}{2} \times 60^\circ = 30^\circ$ .

(2) 不变.

$\therefore CB \parallel OA$ ,

$\therefore \angle OCB = \angle COA$ ,  $\angle OFB = \angle FOA$ .

$\therefore \angle FOC = \angle AOC$ ,

$\therefore \angle COA = \frac{1}{2} \angle FOA$ ,

即  $\angle OCB : \angle OFB = 1 : 2$ .

25. 解: (1)  $\therefore AB \parallel CD$ ,

$\therefore \angle 1 = \angle 2$ .

又  $\therefore EF \parallel MN$ ,

$\therefore \angle 2 = \angle 3$ .

又  $\therefore \angle 1 = 115^\circ$ ,

$\therefore \angle 3 = 115^\circ$ .

又  $\therefore \angle 3 + \angle 4 = 180^\circ$ ,

$\therefore \angle 4 = 180^\circ - 115^\circ = 65^\circ$ .

(2) 相等或互补. 理由如下:

$\therefore \angle 1$  的两边是  $GB$  和  $GF$ ,  $\angle 3$  的两边是  $HC$  和  $HM$ .  $GB \parallel HC$ ,  $GF \parallel HM$ ,

$\therefore \angle 1 = \angle 2$ ,  $\angle 2 = \angle 3$ .  $\therefore \angle 1 = \angle 3$ .

又  $\therefore \angle 1$  的两边是  $GB$  和  $GF$ ,  $\angle 4$  的两边是  $HC$  和  $HN$ .  $GB \parallel HC$ ,  $GF \parallel HN$ ,

$\therefore \angle 1 = \angle 2$ ,  $\angle 2 + \angle 4 = 180^\circ$ .

$\therefore \angle 1 + \angle 4 = 180^\circ$ .

故填相等或互补.

(3) 设一个角为  $x$ , 则另一个角为  $\frac{x}{2}$ .

根据题意, 得  $x = \frac{x}{2}$  (舍去),  $x + \frac{x}{2} =$

$180^\circ$ .

解得  $x = 120^\circ$ .

所以另一个角为  $60^\circ$ ,

即两个角的度数分别为  $120^\circ$  和  $60^\circ$ .

26. 解: (1)  $\therefore AB \parallel CD \parallel EF$ ,

$\therefore \angle A + \angle ACD = 180^\circ$ ,  $\angle E + \angle ECD =$

$180^\circ$ .

$\therefore \angle A + \angle ACD + \angle E + \angle ECD = 360^\circ$ ,

即  $\angle BAC + \angle ACE + \angle CEF = 360^\circ$ .

故选 C.

(2)  $\angle BAD + \angle DEF = \angle ADE$ .

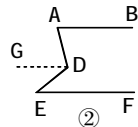
如图②, 过点 D 作  $DG \parallel AB$ .

$\therefore AB \parallel EF$ ,

$\therefore DG \parallel AB \parallel EF$ .

$\therefore \angle A = \angle ADG$ ,  $\angle E = \angle EDG$ .

$\therefore \angle A + \angle E = \angle ADG + \angle EDG = \angle ADE$ .



(第 26 题图)

(3)  $\angle ACE + 2\angle ADE = 360^\circ$ .

理由: 由 (1), 得  $\angle BAC + \angle C + \angle CEF = 360^\circ$ .

由 (2), 得  $\angle D = \angle BAD + \angle DEF$ .

又  $\therefore AD, ED$  分别平分  $\angle BAC, \angle CEF$ ,

$\therefore \angle BAC = 2\angle BAD$ ,  $\angle CEF = 2\angle DEF$ .

$\therefore 2\angle BAD + \angle ACE + 2\angle DEF = 360^\circ$ ,

即  $2(\angle BAD + \angle DEF) + \angle ACE = 360^\circ$ .

$\therefore \angle ACE + 2\angle ADE = 360^\circ$ .

(4) 如图④, 过点 C 作  $CG \parallel AB$ , 过

点 D 作  $DH \parallel EF$ .

$\therefore AB \parallel EF$ ,

$\therefore CG \parallel AB \parallel EF \parallel DH$ .

$\therefore \angle BAC + \angle ACG = 180^\circ$ ,  $\angle GCD =$

$\angle HDC$ ,  $\angle DEF = \angle HDE$ .

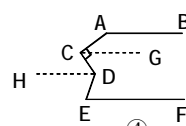
$\therefore \angle ACG = 180^\circ - \angle BAC$ .

$\therefore \angle ACD = 90^\circ$ ,

$\therefore \angle CDH = \angle DCG = 90^\circ - \angle ACG = 90^\circ - (180^\circ - \angle BAC) = \angle BAC - 90^\circ$ .

$\therefore \angle CDE = \angle BAC - 90^\circ + \angle DEF$ .

$\therefore \angle BAC + \angle DEF - \angle CDE = 90^\circ$ .



(第 26 题图)

## 数学 人教

## 七年级答案页第 7 期

2020-2021 学年

学习周报

7

### 第 25 期

2 版

5.1.1 相交线

1. B

2. B

3.  $\angle 3$ ,  $155^\circ$ ,  $25^\circ$ ,  $155^\circ$

4.  $90^\circ$  5.  $33^\circ$ ,  $72^\circ$

5.1.2 垂线

1. C

2. C

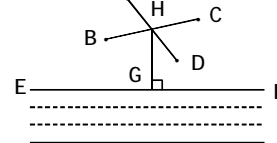
3. C

4. 略

5. C

6. D

7. 解: 如图所示:



(第 7 题图)

(1) 因为两点之间线段最短, 所以连接  $AD, BC$  交于点  $H$ , 则  $H$  为蓄水池位置, 它到四个村庄距离之和最小.

(2) 过点  $H$  作  $HG \perp EF$ , 垂足为  $G$ . 根据“过直线外一点与直线上各点的连线中, 垂线段最短”,  $HG$  即为最短水渠.

5.1.3 同位角、内错角、同旁内角

1. B

2. A

3. ①②

4. 解: 第一个图中,  $\angle 1$  和  $\angle 2$  是直线  $AB, CD$  被直线  $BD$  所截形成的内错角,  $\angle 3$  和  $\angle 4$  是直线  $AD, CB$  被直线  $BD$  所截形成的内错角;

第二个图中,  $\angle 1$  和  $\angle 2$  是直线  $AB, CD$  被直线  $BC$  所截形成的同位角,  $\angle 3$  和  $\angle 4$  是直线  $AB, CB$  被直线  $AC$  所截形成的同旁内角.

5. 解: (1) 与  $\angle 1$  是同位角的角是  $\angle C$ ,  $\angle MOF$ ,  $\angle AOF$ ;

(2) 与  $\angle 2$  是内错角的角是  $\angle MOE$ ,  $\angle AOE$ .

3 版

一、选择题

1-6. BBADCD

二、填空题

7.  $70^\circ$

8. 在同一平面内, 过一点有且只有一条直线与已知直线垂直

9.  $80^\circ$

10. 垂线段最短

11.  $120^\circ$

12.  $26^\circ$  或  $154^\circ$

三、

13. 解: 因为  $\angle EOC = 70^\circ$ ,  $OA$  平分  $\angle EOC$ ,

所以  $\angle EOA = \angle AOC = \frac{1}{2} \times 70^\circ = 35^\circ$ .

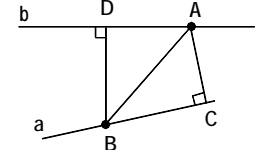
所以  $\angle BOD = \angle AOC = 35^\circ$ .

14. 解: 如图所示:

(1) 沿  $AB$  走, 两点之间线段最短;

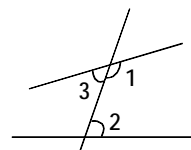
(2) 沿  $AC$  走, 垂线段最短;

(3) 沿  $BD$  走, 垂线段最短.



(第 14 题图)

15. 解: (1) 如图所示:



(第 15 题图)

(2) 因为  $\angle 1 = 3\angle 2$ ,  $\angle 2 = 3\angle 3$ ,

所以  $\angle 1 = 9\angle 3$ .

因为  $\angle 1 + \angle 3 = 180^\circ$ ,

所以  $9\angle 3 + \angle 3 = 180^\circ$ .

所以  $\angle 3 = 18^\circ$ .

所以  $\angle 1 = 162^\circ$ ,  $\angle 2 = 54^\circ$ .

16. 解: (1)  $MO$ .

(2)  $MO \perp MN$ , 垂线段最短.

(3) 因为  $\angle AON = 65^\circ$ ,  $\angle MON = 90^\circ$ , 所以  $\angle BOM = 180^\circ - 65^\circ - 90^\circ = 25^\circ$ .

因为  $OM$  平分  $\angle BOD$ ,

所以  $\angle DOM = \angle BOM = 25^\circ$ .

所以  $\angle BOD = 2 \times 25^\circ = 50^\circ$ .

所以  $\angle AOC = \angle BOD = 50^\circ$ .

17. 解: (1)  $\angle AOD$  (或  $\angle COB$ ).

(2) 结论:  $ON \perp CD$ .

证明: 因为  $OM \perp AB$ ,

所以  $\angle 1 + \angle AOC = 90^\circ$ .

又因为  $\angle 1 = \angle 2$ ,

所以  $\angle NOC = \angle 2 + \angle AOC = 90^\circ$ .

所以  $ON \perp CD$ .

(3) 因为  $\angle 1 = \frac{1}{4} \angle BOC$ ,

所以  $\angle BOC = 4\angle 1$ .

因为  $\angle BOC - \angle 1 = \angle MOB = 90^\circ$ ,

所以  $\angle 1 = 30^\circ$ .

所以  $\angle MOD = 180^\circ - \angle 1 = 150^\circ$ .

四、

18. 解: (1) 因为  $\angle AOE = 40^\circ$ ,

所以  $\angle AOF = 180^\circ - \angle AOE = 140^\circ$ .

因为  $OC$  平分  $\angle AOF$ ,

所以  $\angle AOC = \frac{1}{2} \angle AOF = 70^\circ$ .

因为  $OA \perp OB$ ,

所以  $\angle AOB = 90^\circ$ .

所以  $\angle BOD = 180^\circ - \angle AOB - \angle AOC = 180^\circ - 90^\circ - 70^\circ = 20^\circ$ .

(2) 因为  $\angle AOE = x^\circ$ ,

所以  $\angle AOF = 180^\circ - \angle AOE$

$= (180 - x)^\circ$ .

因为  $OC$  平分  $\angle AOF$ ,

所以  $\angle AOC = \frac{1}{2} \angle AOF = 90^\circ - \frac{1}{2} x^\circ$ .

因为  $OA \perp OB$ ,

所以  $\angle AOB = 90^\circ$ .

所以  $\angle BOD = 180^\circ - \angle AOB - \angle AOC = 180^\circ - 90^\circ - 90^\circ + \frac{1}{2} x^\circ = \frac{1}{2} x^\circ$ .

2.D

3.D

4.解:  $\because CD \parallel OB$ , $\therefore \angle AOB = \angle ACD = 40^\circ$ ,  $\angle CDO = \angle DOB$ . $\therefore OE$  是  $\angle AOB$  的平分线, $\therefore \angle COD = \angle DOB = \frac{1}{2} \angle AOB = 20^\circ$ . $\therefore \angle CDO = 20^\circ$ .5.解:(1)直线  $AD \parallel BC$ .理由如下: $\therefore AB \parallel CD$ , $\therefore \angle A + \angle ADC = 180^\circ$ .又  $\because \angle A = \angle C$ , $\therefore \angle ADC + \angle C = 180^\circ$ . $\therefore AD \parallel BC$ .(2) $\therefore AB \parallel CD$ , $\therefore \angle ABC = 180^\circ - \angle C = 80^\circ$ . $\because \angle DBF = \angle ABD$ ,  $BE$  平分  $\angle CBF$ , $\therefore \angle DBE = \frac{1}{2} \angle ABF + \frac{1}{2} \angle CBF =$  $\frac{1}{2} \angle ABC = 40^\circ$ .

3 版

一、选择题

1~6.ABBCBB

二、填空题

7.平行 8.30°

9.20 10.70°

11.20

12.45°或 135°

三、

13.图略.

14.解:  $EF \parallel BC$ .

理由如下:

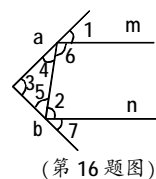
 $\therefore AD \parallel BC$ , $\therefore \angle ACB = \angle DAC = 60^\circ$ . $\therefore \angle ACF = 25^\circ$ , $\therefore \angle FCB = 35^\circ$ . $\therefore \angle EFC + \angle FCB = 145^\circ + 35^\circ = 180^\circ$ . $\therefore EF \parallel BC$ .15.解:(1) $\therefore DE \parallel BC$ , $\therefore \angle ADE = \angle B$ .又  $\because \angle B = 48^\circ$ , $\therefore \angle ADE = 48^\circ$ .(2) $EF \parallel AB$ .理由: $\because \angle DEF = 48^\circ$ ,  $\angle ADE = 48^\circ$ , $\therefore \angle DEF = \angle ADE \therefore EF \parallel AB$ .

16.解:(1)①相等,两直线平行,同

位角相等,相等.

②平行,同位角相等,两直线平行.

(2)如图.



(第 16 题图)

 $\therefore \angle 1 = 40^\circ$ , $\therefore \angle 4 = \angle 1 = 40^\circ$ . $\therefore \angle 6 = 180^\circ - 40^\circ - 40^\circ = 100^\circ$ . $\therefore m \parallel n$ , $\therefore \angle 2 + \angle 6 = 180^\circ$ . $\therefore \angle 2 = 80^\circ$ . $\therefore \angle 5 = \angle 7 = \frac{1}{2} (180^\circ - 80^\circ) = 50^\circ$ . $\therefore \angle 3 = 180^\circ - 50^\circ - 40^\circ = 90^\circ$ .17.解:(1)证明: $\because \angle BDA + \angle CEG = 180^\circ$ ,  $\angle BDA + \angle ADC = 180^\circ$ . $\therefore \angle ADC = \angle CEG$ . $\therefore AD \parallel EF$ . $\therefore \angle EDH = \angle C$ , $\therefore DH \parallel AC$ . $\therefore \angle H = \angle AGF$ . $\therefore \angle F = \angle H$ , $\therefore \angle F = \angle AGF$ . $\therefore AD \parallel EF$ , $\therefore \angle BAD = \angle F$ ,  $\angle CAD = \angle AGF$ . $\therefore \angle BAD = \angle CAD$ .(3) $\therefore FH \perp BC$ , $\therefore \angle CEG = 90^\circ$ . $\therefore \angle C = 30^\circ$ , $\therefore \angle CGE = 90^\circ - 30^\circ = 60^\circ$ . $\therefore \angle F = \angle AGF = \angle CGE = 60^\circ$ .

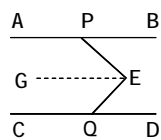
四、

18.解:(1) $\angle PEQ = \angle APE + \angle CQE$ .

理由如下:

 $\therefore AB \parallel CD$ ,  $EH \parallel AB$ , $\therefore AB \parallel EH \parallel CD$ . $\therefore \angle APE = \angle PEH$ ,  $\angle CQE = \angle QEH$ . $\therefore \angle PEQ = \angle PEH + \angle QEH$ , $\therefore \angle PEQ = \angle APE + \angle CQE$ .(2) $\angle APE + \angle CQE + \angle PEQ = 360^\circ$ .

理由如下:

如图,过点  $E$  作  $EG \parallel AB$ .

(第 18 题图)

 $\therefore AB \parallel CD$ ,  $EG \parallel AB$ , $\therefore AB \parallel EG \parallel CD$ . $\therefore \angle APE + \angle PEG = 180^\circ$ ,  $\angle CQE + \angle QEG = 180^\circ$ . $\therefore \angle APE + \angle PEG + \angle CQE + \angle QEG = 360^\circ$ ,即  $\angle APE + \angle CQE + \angle PEQ = 360^\circ$ .(3)由(2),得  $\angle PEQ + \angle BPE + \angle EQD = 360^\circ$ . $\therefore \angle PEQ = 140^\circ$ , $\therefore \angle BPE + \angle EQD = 360^\circ - 140^\circ = 220^\circ$ . $\therefore PF$  平分  $\angle BPE$ ,  $QF$  平分  $\angle EQD$ , $\therefore \angle BPF = \frac{1}{2} \angle BPE$ ,  $\angle DQF = \frac{1}{2} \angle EQD$ . $\therefore \angle BPF + \angle DQF = \frac{1}{2} \angle BPE + \frac{1}{2} \angle EQD = 110^\circ$ .由(1),得  $\angle PFQ = \angle BPF + \angle DQF = 110^\circ$ .

## 第 27 期

2 版

5.3.2 命题、定理、证明

1.C

2.B

3.①④

4.解:(1)如果两个角是同一个角的补角,那么这两个角相等.

(2)如果两个角是对顶角,那么这两个角相等.

5.A

6.解:(1)上述问题有三种正确命题,分别是:命题 1:①② $\Rightarrow$ ③;命题 2:①③ $\Rightarrow$ ②;命题 3:②③ $\Rightarrow$ ①.(2)选择命题 2:①③ $\Rightarrow$ ②.证明: $\because CE \parallel AB$ , $\therefore \angle ACE = \angle A$ ,  $\angle DCE = \angle B$ . $\therefore CE$  平分  $\angle ACD$ , $\therefore \angle ACE = \angle DCE$ . $\therefore \angle A = \angle B$ .

5.4 平移

第 1 课时

1~4.CCBD

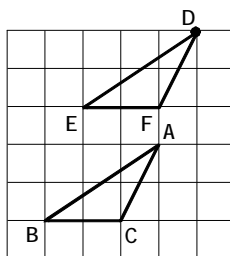
5.30

第 2 课时

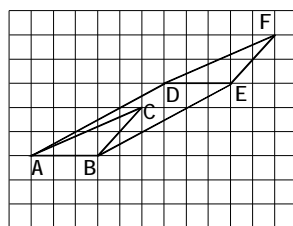
1.5.5cm

2.C

3.解:平移后的三角形如图所示.



(第 3 题图)

4.解:(1)如图,  $\triangle DEF$  即为所求.

(第 4 题图)

(2)由平移的性质可知,  $AD \parallel BE$ ,  $AD = BE$ . 线段  $AB$  扫过的部分所组成的封闭图形的面积  $= 3 \times 3 = 9$ .故填  $AD \parallel BE$ ,  $AD = BE$ , 9.

3 版

一、选择题

1~6.CDBBAC

二、填空题

7.如果两个角相等,这两个角是对顶角

8.1, -2

9.5, 3

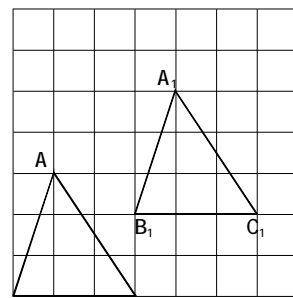
10.18

11.132

12.2 或 6

三、

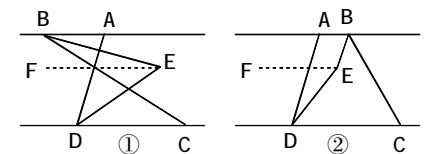
13.解:(1)假命题,两直线不平行时不成立,可通过画图说明;

(2)假命题,当  $c \leq 0$  时不成立,如  $2 < 3$ , 但  $2 \times 0 = 3 \times 0$  等;(3)假命题,如  $\alpha = 20^\circ$ ,  $\beta = 50^\circ$ , 则  $\alpha + \beta = 70^\circ$  不是钝角.14.解:  $CAD$  两直线平行,内错角相等  $CAD$  等式的性质  $CAD$   $BAF$  同位角相等,两直线平行15.解:(1)如图所示,  $\triangle A_1B_1C_1$  即为所求.

(第 15 题图)

(2)由平移的性质知  $A_1B_1 \parallel AB$ .

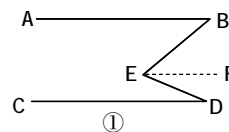
故填平行.

(3)三角形  $A_1B_1C_1$  的面积为  $\frac{1}{2} \times 3 \times 3 = \frac{9}{2}$ .故填  $\frac{9}{2}$ .16.解:因为正方形草坪的边长为  $a$  m, 小路的宽为  $1$  m,所以①中的草坪可拼成边长为  $(a-1)$  m 的正方形, 草坪面积  $= (a-1)^2$  m<sup>2</sup>.同理可得, ②中草坪面积  $= (a-2)^2$  m<sup>2</sup>.17.解:(1)作  $EF \parallel AB$ , 如图①. $\therefore BE$  平分  $\angle ABC$ ,  $DE$  平分  $\angle ADC$ , $\therefore \angle ABE = \frac{1}{2} \angle ABC = 25^\circ$ ,  $\angle EDC =$  $\frac{1}{2} \angle ADC = 40^\circ$ . $\therefore AB \parallel CD$ , $\therefore EF \parallel CD$ . $\therefore \angle BEF = \angle ABE = 25^\circ$ ,  $\angle FED = \angle EDC = 40^\circ$ , $\therefore \angle BED = 25^\circ + 40^\circ = 65^\circ$ .

(第 17 题图)

(2)作  $EF \parallel AB$ , 如图②. $\therefore BE$  平分  $\angle ABC$ ,  $DE$  平分  $\angle ADC$ , $\therefore \angle ABE = \frac{1}{2} \angle ABC = 60^\circ$ ,  $\angle EDC =$  $\frac{1}{2} \angle ADC = 40^\circ$ . $\therefore AB \parallel CD$ , $\therefore EF \parallel CD$ . $\therefore \angle BEF = 180^\circ - \angle ABE = 120^\circ$ ,  $\angle FED = \angle EDC = 40^\circ$ , $\therefore \angle BED = 120^\circ + 40^\circ = 160^\circ$ .

四、

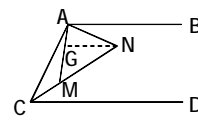
18.解:(1)过点  $E$  作  $EF \parallel AB$ , 如图①所示, 则  $EF \parallel AB \parallel CD$ .

(第 18 题图)

所以  $\angle B = \angle BEF$ ,  $\angle D = \angle DEF$ .所以  $\angle B + \angle D = \angle BEF + \angle DEF$ , 即  $\angle B + \angle D = \angle BED$ .

故填=.

(2)真命题.理由如下:

过点  $E$  作  $EF \parallel AB$ , 如图①所示, 则  $\angle B = \angle BEF$ .因为  $\angle B + \angle D = \angle BED$ ,  $\angle BEF + \angle DEF = \angle BED$ ,所以  $\angle D = \angle BED - \angle B$ ,  $\angle DEF = \angle BED - \angle BEF$ .所以  $\angle D = \angle DEF$ , 所以  $EF \parallel CD$ .因为  $EF \parallel AB$ , 所以  $AB \parallel CD$ .(3)过点  $N$  作  $NG \parallel AB$ , 交  $AM$  于点  $G$ , 如图②所示, 则  $NG \parallel AB \parallel CD$ .所以  $\angle BAN = \angle ANG$ ,  $\angle GNC = \angle NCD$ .又因为  $\angle AMN = \angle ACM + \angle CAM$ ,  $\angle AMN = \angle ANM$ ,  $\angle ANM = \angle ANG + \angle GNC$ ,所以  $\angle ACM + \angle CAM = \angle ANG + \angle GNC$ .所以  $\angle ACM + \angle CAM = \angle BAN + \angle NCD$ .因为  $CN$  平分  $\angle ACD$ ,所以  $\angle ACM = \angle NCD$ .所以  $\angle CAM = \angle BAN$ .

②

(第 18 题图)

## 第 28 期

2~3 版

一、选择题

1~5.ACABC

6~10.DABCD