

2024-2025学年七年级数学下册期末压轴题押题卷01

考试时间：90分钟 试卷满分：100分

姓名：_____ 班级：_____ 考号：_____

注意事项：

1. 本试卷共25题，选择6题，填空12题，解答7题。
2. 答卷前，考生务必将自己的姓名、准考证号填写在答题卡上。
3. 回答选择题时，选出每小题答案后，用2B铅笔把答题卡上对应题目的答案标号涂黑。如需改动，用橡皮擦干净后，再选涂其他答案标号。写在本试卷上无效。
4. 回答客观题时，将答案写在答题卡上。写在本试卷上无效。
5. 考试结束后，将本试卷和答题卡一并交回。
6. 测试范围：沪教版2024七年级数学下册。

第 I 卷

一. 选择题 (本大题有 6 小题，每小题 3 分，共 18 分.在每小题所给出的四个选项中只有一项是符合题目要求的，请将正确选项前的字母代号填涂在答题纸上)

1. C
2. C
3. C
4. A
5. A
6. B

第 II 卷

二. 填空题 (本大题有 12 小题，每小题 2 分，共 24 分.)

7. ②③④
8. 7
9. $3\sqrt{3}$
10. 6
11. 12
12. $\frac{25}{6}$
13. 2 或 6 或 8
14. 35
15. $\angle x + \angle y - \angle z = 180^\circ$

16. $22.5 / \left(\frac{45}{2} \right)$

17. -3 或 1

18. $x < 17$

三. 解答题 (本大题有 7 小题, 共 58 分. 解答时应写出文字说明或演算步骤.)

19. 解: 不等式组可化为 $\begin{cases} x \geq m+2 \\ x \leq -2m-25 \end{cases}$,

$\therefore$ 该不等式组无解,

$\therefore -2m-25 < m+2$,

$\therefore m > -9$.

由 $4y+1=-m$ 得 $y = -\frac{m+1}{4}$,

$\therefore$ 该一元一次方程有非负整数解,

$\therefore -\frac{m+1}{4} \geq 0$, 且 $m+1=0, -4, -8, -12, -16, \dots$ (即 -4 的倍数)

$\therefore m \leq -1$, 且 $m = -1, -5, -9, -13, -17, \dots$

综上, $m = -1$ 或 -5 .

20. 解: 由题意得, $2 - \frac{2x+1}{2} \leq \frac{2x-1}{6}$,

解得: $x \geq \frac{5}{4}$,

$\therefore$ 当 $x \geq \frac{5}{4}$ 时, $2 - \frac{2x+1}{2}$ 的值不大于 $\frac{2x-1}{6}$ 的值.

21. (1) 证明: $\because BC \perp CA, DC \perp CE$,

$\therefore \angle ACB = \angle DCE = 90^\circ$.

$\therefore \angle BCD = \angle ACE$,

在 $\triangle BCD$ 与 $\triangle ACE$ 中,

$\therefore \begin{cases} BC = AC \\ \angle BCD = \angle ACE \\ CD = CE \end{cases}$,

$\therefore \triangle ACE \cong \triangle BCD (\text{SAS})$.

(2) 证明: 由 (1) 知 $\triangle BCD \cong \triangle ACE$,

$\therefore \angle CBD = \angle CAE$,

$\therefore \angle BGC = \angle AGF$,

$\therefore \angle AFB = \angle ACB = 90^\circ$.

$\therefore BF \perp AE$.

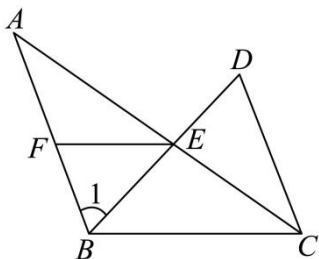
22. (1) 解: $\because \angle 1 = 65^\circ, \angle D = 65^\circ,$

$$\therefore \angle 1 = \angle D,$$

$$\therefore AB \parallel CD,$$

$$\therefore \angle ACD = \angle A = 30^\circ;$$

(2) 证明: 如图,



$$\therefore AB \parallel CD,$$

$$\therefore \angle ABC + \angle BCD = 180^\circ,$$

$$\therefore \angle AFE + \angle BCD = 180^\circ,$$

$$\therefore \angle AFE = \angle ABC,$$

$$\therefore EF \parallel BC,$$

$$\therefore \angle AEF = \angle ACB,$$

$$\therefore \angle A = \angle AEF, \angle A = \angle ACD,$$

$$\therefore \angle ACD = \angle ACB,$$

即 CA 平分 $\angle BCD$.

23. (1) 解: 选择①②为题设, ③为结论, 命题为: 若 $\angle 1 = \angle 2, \angle B = \angle C$, 则 $AB \parallel CD$, 该命题是真命题;

选择①③为题设, ②为结论, 命题为: 若 $\angle 1 = \angle 2, AB \parallel CD$, 则 $\angle B = \angle C$, 该命题是真命题;

选择②③为题设, ①为结论, 命题为: 若 $\angle B = \angle C, AB \parallel CD$, 则 $\angle 1 = \angle 2$, 该命题是真命题;

(2) 证明: 选择①②为题设, ③为结论,

$$\therefore \angle 1 = \angle 2, \angle 1 = \angle CGD,$$

$$\therefore \angle 2 = \angle CGD,$$

$$\therefore CE \parallel BF,$$

$$\therefore \angle C = \angle BFD,$$

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

$$\therefore \angle B = \angle BFD,$$

$$\therefore AB \parallel CD;$$

选择①③为题设, ②为结论,

$$\therefore \angle 1 = \angle 2, \angle 1 = \angle CGD,$$

$$\therefore \angle 2 = \angle CGD,$$

$$\begin{aligned} &\therefore CE \parallel BF, \\ &\therefore \angle C = \angle BFD, \\ &\because AB \parallel CD, \\ &\therefore \angle B = \angle BFD, \\ &\therefore \angle B = \angle C; \end{aligned}$$

选择②③为题设, ①为结论

$$\begin{aligned} &\because AB \parallel CD, \\ &\therefore \angle B = \angle BFD, \\ &\because \angle B = \angle C, \\ &\therefore \angle C = \angle BFD, \\ &\therefore CE \parallel BF, \\ &\therefore \angle 2 = \angle CGD, \end{aligned}$$

又 $\because \angle 1 = \angle CGD,$

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

24. (1) 解: $\because \angle AOD = 134^\circ,$

$$\therefore \angle AOC = 180^\circ - \angle AOD = 180^\circ - 134^\circ = 46^\circ,$$

$\because OE$ 平分 $\angle AOC,$

$$\therefore \angle COE = \frac{1}{2} \angle AOC = 23^\circ,$$

$\because \angle COF = 3\angle COE,$

$$\therefore \angle COF = 3 \times 23^\circ = 69^\circ,$$

$\because \angle BOC = \angle AOD = 134^\circ,$

$$\therefore \angle BOF = \angle BOC - \angle COF = 134^\circ - 69^\circ = 65^\circ.$$

(2) 解: $\because OE \perp OF,$

$$\therefore \angle COE + \angle COF = \angle EOF = 90^\circ,$$

$\because \angle COF = 3\angle COE,$

$$\therefore \angle COE = 22.5^\circ,$$

$\because OE$ 平分 $\angle AOC,$

$$\therefore \angle AOC = 2\angle COE = 45^\circ,$$

$$\therefore \angle BOD = \angle AOC = 45^\circ.$$

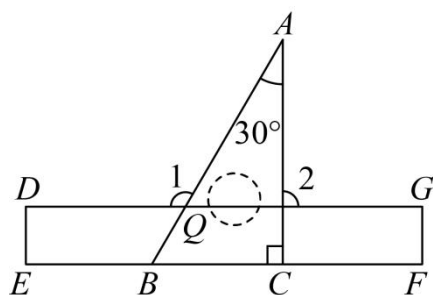
25. (1) 解: 由题意, 得: $\angle ABC = 60^\circ, \angle ACF = 90^\circ,$

$\because DG \parallel EF,$

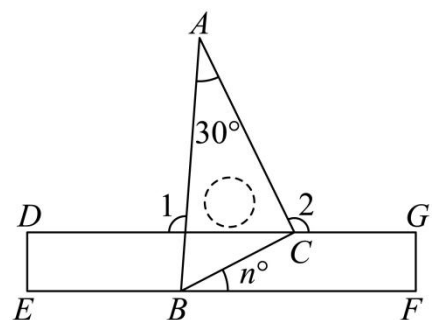
$$\therefore \angle AQG = \angle ABC = 60^\circ, \angle 2 = \angle ACF = 90^\circ,$$

$$\therefore \angle 1 = 180^\circ - 60^\circ = 120^\circ;$$

故答案为：120，90；



(2) 解：如图，



$\because DG \parallel EF$,

$\therefore \angle DCB = \angle CBF = n^\circ$,

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

$\therefore \angle 1 = \angle A + \angle ACD = (120 - n)^\circ$, $\angle 2 = 180^\circ - \angle ACD = 90^\circ + n^\circ$,

$\because \angle 2$ 恰好是 $\angle 1$ 的 $\frac{3}{2}$ 倍,

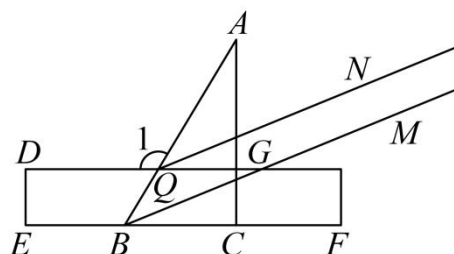
$\therefore 90^\circ + n^\circ = \frac{3}{2}(120^\circ - n^\circ)$,

解得 $n = 36$,

$\therefore n$ 的值是 36；

(3) 解：存在 $BM \parallel NQ$ ，理由如下：

如图：由题意，得： $\angle FBM = t^\circ$ ， $\angle AQN = (2t)^\circ$ ，



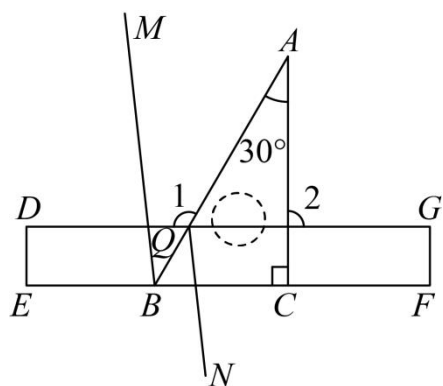
$\because BM \parallel NQ$,

$\therefore \angle AQN = \angle ABM = \angle ABF - \angle FBM$,

$\therefore 2t = 60 - t$,

解得 $t = 20$;

如图:



$\therefore BM \parallel NQ$,

$\therefore \angle ABM = \angle BQN$,

$\therefore t - 60 = 180 - 2t$,

解得 $t = 80$,

综上所述, t 的值为 20 或 80.