

一. 选择题

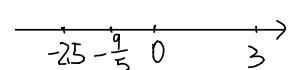
1. [答案] A

[解析] 收入—支出, 故-70为支出70

2. [答案] D

[解析] 科学计数法形式为 $a \times 10^n$ ($1 \leq a < 10$), 故 $11090000 = 1.109 \times 10^7$

3. [答案] B

[解析] 

4. [答案] B

[解析] 只有B、D为负数, -20为负整数, 故选B.

5. [答案] B

[解析] 多项式里次数最高项的次数为这个多项式的次数, 多项式 $x^2 - 4x + 2$ 次数为2, 故选B.

6. [答案] D

[解析] $a < -1$, $0 < b < 1$ 则: A: $ab < 0$; B: $a-b < 0$; C: $a+b < 0$; D: $|a|-|b| > 0$.

7. [答案] D

[解析] $|x|=2 \Rightarrow x=\pm 2$
 $y^2=9 \Rightarrow y=\pm 3$

{	① $x=2, y=3$ $xy>0$. 舍
	② $x=2, y=-3$ $x-y=5$
	③ $x=-2, y=3$ $x-y=-5$
	④ $x=-2, y=-3$ $xy>0$. 舍

8. [答案] C

[解析] 结果分别为: 125, 25, 5, 1, 5, 1 ...
奇 偶 奇 偶
第2020次为偶数次, 故答案为1.

二. 填空题

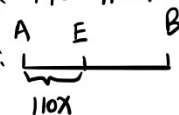
9. 答案: 6

解析: 相反数考察

10. 答案: $-\frac{4}{3}$

解析: 单项式系数

11. 答案: $440-110x$

解析:  E表示汽车, $BE = 440 - 110x$

12. 答案: 7.87

解析: 精确到百分位, (精确到0.01)

13. 答案: 4

解析: $m+2=6$, $m=4$

14 答案: $3n+2$

解析: 每次多3个棋子, $3n+2$ 。

三. 解答题.

$$\begin{aligned} 15 (1) & -\frac{1}{3} + \frac{1}{2} \\ & = -\frac{2}{6} + \frac{3}{6} \\ & = \frac{1}{6} \end{aligned}$$

$$\begin{aligned} (2) & (+9) - (+11) + (-5) \\ & = 9 - 11 - 5 \\ & = -7 \end{aligned}$$

$$\begin{aligned} (3) & (-0.7) \times (-1.7) \div (-2\frac{3}{4}) \times 0 \\ & = 0 \end{aligned}$$

$$\begin{aligned} (4) & (-3\frac{2}{3}) \times (-\frac{7}{8}) \div (-2\frac{3}{4}) \\ & = (-\frac{11}{3}) \times (-\frac{7}{8}) \times (-\frac{4}{11}) \\ & = \frac{4}{3} \times (-\frac{7}{8}) \\ & = -\frac{7}{6} \end{aligned}$$

$$\begin{aligned} (5) & (-4)^2 - 12 \times (\frac{1}{3} - 1) \div (-1\frac{1}{3}) \\ & = 16 - 12 \times (-\frac{2}{3}) \times (-\frac{3}{4}) \\ & = 16 + 8 \times (-\frac{3}{4}) \\ & = 16 - 6 \\ & = 10 \end{aligned}$$

$$\begin{aligned} (6) & -1^2 + (1 - 0.5) \div 4 \times [1 - (-3)^3] \\ & = -1 + \frac{1}{2} \times \frac{1}{4} \times 28 \\ & = -1 + \frac{7}{2} \\ & = \frac{5}{2} \end{aligned}$$

16. [答案] (1) -2
(2) -3790
(3) -5
(4) -25

解析

$$\begin{aligned} (1) & -0.5 - (-2\frac{1}{4}) + 2.75 - (+7\frac{1}{2}) \\ & = (-0.5 - 7\frac{1}{2}) + 2\frac{1}{4} + 2\frac{3}{4} \\ & = -8 + 6 \\ & = -2 \end{aligned}$$

$$\begin{aligned} (2) & 25 \times \frac{11}{74} \times 3.79 \times (-40) \times 6\frac{8}{11} \\ & = -25 \times 40 \times \frac{11}{74} \times \frac{74}{11} \times 3.79 \\ & = -3790 \end{aligned}$$

$$\begin{aligned} (3) & -24 \times (-\frac{3}{4} + \frac{5}{6} - \frac{7}{8}) \\ & = -24 \times (-\frac{3}{4}) + (-24) \times \frac{5}{6} - (-24) \times \frac{7}{8} \\ & = 18 - 44 + 21 \\ & = -5 \end{aligned}$$

$$\begin{aligned} (4) & \frac{1}{8} \times 175 + (-25) \times 0.125 - (-\frac{1}{8}) \times 50 \\ & = \frac{1}{8} \times (175 - 25 + 50) \\ & = 25 \end{aligned}$$

17. [答案] (1) $(-3 + 1\frac{2}{3})^2 = \frac{16}{9}$

(2) $|-4| + |-5| + |7| - [(-4) + (-5) + (7)] = 18$

18. [答案]: (1) 0.9, 85

(2) $(85 + 0.9x)$

(3) 118.3 cm

解析 (1) 三本书的厚度: $90.4 - 87.7 = 2.7$ cm

一本书的厚度: $2.7 \div 3 = 0.9$ cm

桌子的高度: $87.7 - 2.7 = 85$ cm

(2) $(85 + 0.9x)$ 本

(3) $85 + (56 - 19) \times 0.9 = 118.3$ cm

余下课本距离地面的最大高度为 118.3 cm.

19. [答案] (1) $a = -1, b = 2$

(2) 0

解析 (1) $\because |a+1| + (b-2)^2 = 0$

$|a+1| \geq 0, (b-2)^2 \geq 0$

$\therefore |a+1| = 0, (b-2)^2 = 0$

$\therefore a+1 = 0, b-2 = 0$

$\therefore a = -1, b = 2$

(2) $(a+b)^{2020} + a^{2019}$

$= (-1+2)^{2020} + (-1)^{2019}$

$= 0$

20. [答案] (1) 南, 2 km

(2) 7.12 m^3

(3) 38.6

解析] (1) $-3+6-2.8+1.8-5-2+9-6=2(\text{km})$

小李在儿童公园南边, 距离儿童公园 2 km.

(2) $| -3 | + | 6 | + | -2.8 | + | 1.8 | + | -5 | + | -2 | + | 9 | + | -6 | = 35.6 \text{ km}$

$35.6 \times 0.2 = 7.12 \text{ m}^3$

出租车共消耗天然气 7.12 立方米.

(3). $8+8+(6-3) \times 2.2+8+8=38.6 \text{ 元}$

21. [答案]

初步探索: $-4, -9, -4$

深入思考: (1) $-8 \times 5, 1 \times 6, -a(n-2)$

(2) 66

解析]

初步探索:

$2 \downarrow_4 = 2-2-2-2 = -2 \times (4-2) = -4$

$3 \downarrow_5 = 3-3-3-3-3 = -3 \times (5-2) = -9$

$(\frac{4}{3}) \downarrow_5 = -\frac{4}{3} \times (5-2) = -4$

深入思考:

(1). $8 \downarrow_7 = -8 \times (7-2) = -8 \times 5$

$1 \downarrow_8 = 1 \times (8-2) = 1 \times 6$

$a \downarrow_n = -a \times (n-2) = -a(n-2)$

$$(2) \quad (-\frac{1}{2}) \downarrow_7 \times 24 + 4 \downarrow_5 \div (-2)$$

$$= \frac{1}{2} \times (7-2) \times 24 + (-4) \times (5-2) \div (-2)$$

$$= \frac{1}{2} \times 5 \times 24 + (-4) \times 3 \div (-2)$$

$$= 60 + 6$$

$$= 66$$

22. [答案] (1). 0 (2). 5 (3) ① $2t$ ② $-4+2t$.

(4). 1, 3, 7, 9.

[解析]

(1). 当 $0 < t \leq 5$ 时.

$$P: -4+2t.$$

当 $t=2$ 时, $\therefore t=2$ 时, 表示数为 0

$$-4+2 \times 2 = 0.$$

(2). 当 P 到 B 时,

$$6 - (-4) \div 2 = 5 \quad \therefore P \text{ 与 } B \text{ 重合时, } t \text{ 为 } 5.$$

(3) ① 当 P 从 A 到 B 时.

$$P: -4+2t. \quad \therefore PA = -4+2t - (-4) = 2t.$$

② 当 P 从 A 到 B 过程中,

$$0 < t \leq 5.$$

$$P: -4+2t.$$

(4). 当 $0 < t \leq 5$ 时.

当 $5 < t \leq 10$ 时.

$$|-4+2t-0|=2.$$

$$P: 6-2(t-5)=16-2t.$$

$$t=1 \text{ 或 } t=3.$$

$$|16-2t-0|=2.$$

$$t=7 \text{ 或 } t=9.$$

\therefore 当 $t=1, 3, 7, 9$ 时, 到原点距离为 2.