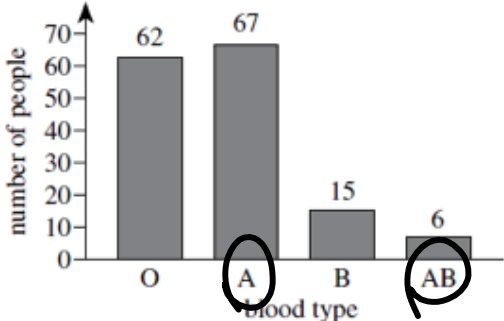


1. The blood types of 150 people were determined for a study as shown in the figure below.



$$\frac{73}{150}$$

If 1 person from this study is randomly selected, what is the probability that this person has either Type A or Type AB blood?

- A. $\frac{62}{150}$
- B. $\frac{66}{150}$
- C. $\frac{68}{150}$
- D. $\frac{73}{150}$
- E. $\frac{84}{150}$

2. The monthly fees for single rooms at 5 colleges are \$370, \$310, \$380, \$340, and \$310, respectively. What is the mean of these monthly fees?

- F. \$310
- G. \$340
- H. \$342
- J. \$350
- K. \$380

$$\begin{array}{r} 370 \\ 310 \\ 380 \\ 340 \\ 310 \\ \hline 1710 \end{array}$$

$$\frac{1710}{5} = 342$$

3. On a particular road map, $\frac{1}{2}$ inch represents 18 miles. About how many miles apart are 2 towns that are $2\frac{1}{2}$ inches apart on this map?

- A. 18
 B. $22\frac{1}{2}$
 C. 36
 D. 45
 E. 90

$$\frac{\frac{1}{2}}{18} = \frac{2\frac{1}{2}}{x} \Rightarrow \begin{array}{l} .5x = 45 \\ \underline{.5} \quad \underline{.5} \\ x = 90 \end{array}$$

4. Given $f = cd^3$, $f = 450$, and $d = 10$, what is c ?

- F. 0.45
 G. 4.5
 H. 15
 J. 45
 K. 150

$$450 = c \cdot 10^3$$

$$\frac{450}{1000} = \frac{1000c}{1000}$$

$$.45 = \frac{450}{1000} = c$$

5. If $f(x) = (3x + 7)^2$, then $f(1) = ?$

- A. 10
- B. 16
- C. 58
- D. 79
- E. 100

$$= (3+7)^2$$

$$= 10^2$$

$$= 100$$

6. Jorge's current hourly wage for working at Denti Smiles is \$12.00. Jorge was told that at the beginning of next month, his new hourly wage will be an increase of 6% of his current hourly wage. What will be Jorge's new hourly wage?

- F. \$12.06
- G. \$12.60
- H. \$12.72
- J. \$18.00
- K. \$19.20

$$1.06(12) = 12.72$$

7. The first term is 1 in the geometric sequence 1, -3, 9, -27, ... What is the SEVENTH term of the geometric sequence?

- A. -243
- B. -30
- C. 81
- D. 189
- E. 729

mult. by a common ratio.
 $\times(-3)$

- $\equiv -3$
- | | | | | | | | |
|--|---|----|---|-----|----|------|-----|
| | 1 | -3 | 9 | -27 | 81 | -243 | 729 |
| | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ |

Geo $A_n = A_1 r^{n-1} \rightarrow A_7 = 1 \cdot (-3)^{7-1}$
 $= (-3)^6 = 729$

8. The shipping rate for customers of Ship Quick consists of a fee per box and a price per pound for each box. The table below gives the fee and the price per pound for customers shipping boxes of various weights.

Weight of box (pounds)	Fee	Price per pound
Less than 10	\$ 5.00	\$1.00
10-25	\$10.00	\$0.65
More than 25	\$20.00	\$0.30

Gregg wants Ship Quick to ship 1 box that weighs 15 pounds. What is the shipping rate for this box?

- F. \$ 9.75
- G. \$16.50
- H. \$19.75
- J. \$20.00
- K. \$24.50

$10 + (.65)15$
 $10 + 9.75$