## PEMDAS (Order of Operations)

1) Answer: D

## Explanation:

$$
2^{3} \times(3+9)-4
$$

We start by performing the operation inside the parenthesis:

$$
\begin{gathered}
2^{3} \times(3+9)-4 \\
2^{3} \times 12-4
\end{gathered}
$$

Afterwards, we simplify the number with an exponent:

$$
\begin{array}{r}
2^{3} \times 12-4 \\
8 \times 12-4
\end{array}
$$

Then, we perform multiplication:
$8 \times 12-4$
Finally, we get the answer through subtraction:

$$
96-4
$$

92
Hence, the answer is 92 .

## 2) Answer: B

Explanation:

$$
(245 \div-5) \times 3-(9-15)
$$

We start by performing the operations inside the parentheses:

$$
\begin{gathered}
(245 \div-5) \times 3-(9-15) \\
-49 \times 3-(-6)
\end{gathered}
$$

There are no exponents involved, so we will now proceed with multiplication:
-147-(-6)
We finish our calculation with the subtraction process:

$$
\begin{gathered}
-147-(-6) \\
-147+6 \\
-141
\end{gathered}
$$

Hence, the answer is -141

## PEMDAS (Order of Operations)

## 3) Answer: A <br> Explanation:

$$
19-(-8+7)+312
$$

Let us start our calculation by performing the operation inside the parenthesis

$$
\begin{aligned}
& 19-(-8+7)+312 \\
& 19-(-1)+312
\end{aligned}
$$

Since there are no exponents, multiplication, and division signs involved, we immediately proceed with AS or addition or subtraction. The subtraction sign appeared first from the left. Hence, we prioritize subtraction first then perform addition.

$$
\begin{gathered}
19-(-1)+312 \\
20+312 \\
332
\end{gathered}
$$

Hence, the answer is 332 .

## 4) Answer: D

Explanation:

$$
8^{3} \div 4 \times(-3-12)+\left(5^{2} \times 2\right)
$$

Let us perform the operations inside the parentheses first:

$$
\begin{aligned}
& 8^{3} \div 4 \times(-3-12)+\left(5^{2} \times 2\right) \\
& 8^{3} \div 4 \times(-15)+(25 \times 2) \\
& 8^{3} \div 4 \times(-15)+50
\end{aligned}
$$

Simplifying the number with an exponent:

$$
512 \div 4 \times(-15)+50
$$

We prioritize division first since it appears first from the left before multiplication:

$$
512 \div 4 \times(-15)+50
$$

To get more Mathematics review

## PEMDAS (Order of Operations)

$$
128 \times(-15)+50
$$

Performing multiplication:

$$
\text { - } 1920+50
$$

We finish our calculation by adding the remaining numbers:

- $1920+50$
- 1870

The answer is -1870 .
5) Answer: D

Explanation:

$$
\left(5^{3} \times 2^{2}\right)-\left(3^{2} \times 15\right)
$$

We begin our computation by performing the operations inside the parentheses:
$\left(5^{3} \times 2^{2}\right)-\left(3^{2} \times 15\right)$
( $125 \times 4$ ) - $(9 \times 15)$
500-135
Lastly, we subtract the remaining numbers

$$
500-135
$$

365

