6. Which of the following is a unit vector perpendicular to the plane determined by the vectors $\mathbf{A} = 2\mathbf{i} + 4\mathbf{j}$ and $\mathbf{B} = \mathbf{i} + \mathbf{j} - \mathbf{k}$?

- ○ A. $-2\mathbf{i} + \mathbf{j} - \mathbf{k}$
- ○ B. $\frac{1}{\sqrt{5}}(\mathbf{i} + 2\mathbf{j})$
- ○ C. $\frac{1}{\sqrt{6}}(-2\mathbf{i} + \mathbf{j} - \mathbf{k})$
- ○ D. $\frac{1}{\sqrt{6}}(-2\mathbf{i} - \mathbf{j} - \mathbf{k})$

7. The following data have been collected:

Test	Average Score
1	85
2	87
3	95
4	90
5	85
6	88
7	90
8	90
9	91

Which of the following statements is true?

- ○ A. The median and the mode are equal.
- ○ B. The mean and the median are equal.
- ○ C. The mean and the mode are equal.
- ○ D. The mean is larger than both the mode and the median.

NEXT→

8. You have a fair coin that you toss ten times. The probability of getting exactly four heads in ten tosses is most nearly:

- ○ A. 0.1
- ○ B. 0.2
- ○ C. 0.4
- ○ D. 0.5

9. You throw two 6-sided fair dice. The probability that the sum will be less than 12 is most nearly:

- ○ A. 0.028
- ○ B. 0.083
- ○ C. 0.333
- ○ D. 0.972

NEXT→

10. The only point of inflection on the curve representing the equation $y = x^3 + x^2 - 3$ is at:

- ○ A. $x = -\frac{2}{3}$
- ○ B. $x = -\frac{1}{3}$
- ○ C. $x = 0$
- ○ D. $x = \frac{1}{3}$

11. A spreadsheet display shows the following values in Column A:

	A	B
1	–2	
2	–1	
3	0	
4	1	
5	2	

Cell B1 contains the formula \$A1^3 + A\$1^2 – 3. The formula in Cell B1 is copied down in Column B with automatic cell referencing. The formula in Cell B5 will be:

- ○ A. \$A1^3 + A\$5^2 – 3
- ○ B. A5^3 + B\$1^2 – 3
- ○ C. \$A5^3 + A\$1^2 – 3
- ○ D. A5^3 + A5^2 – 3

NEXT→