

**MTEL REVIEW, FALL 2014**  
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PRACTICE QUESTIONS

For each question find the correct answer and explain:

- 1) Why it is correct.
- 2) Why the other answers are wrong.
- 3) What mistakes might students make to pick the wrong answers? Be specific as to what mistake could lead to what wrong answer.

1. QUESTION 1

The greatest common factor of  $n$  and 720 is 48. Which of the following could be the prime factorization of  $n$ ?

- (A)  $2^3 \cdot 3$
- (B)  $2^4 \cdot 3^2$
- (C)  $2^5 \cdot 3 \cdot 11$
- (D)  $2^6 \cdot 3 \cdot 5$

## QUESTION 2

Use the problem below to answer the question that follows.

A carpenter bought some pieces of moulding from a supplier. The supplier charged 6% sales tax and the total came to \$424. Without the tax, the carpenter could have bought 16 more pieces of moulding. How many pieces of moulding did the carpenter buy?

If  $p$  represents the price of one block, in which of the following equations does  $x$  represent the answer to the question above?

(A)  $1.06p(x + 16) = 424$

(B)  $0.94px = p(x + 16)$

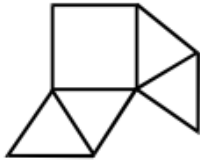
(C)  $0.94p(x + 16) = 424$

(D)  $1.06px = p(x + 16)$

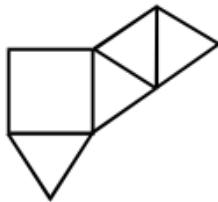
## QUESTION 3

Which of the following nets can be folded to form a square pyramid?

A.



B.



C.



D.

