NAME:_____

1. 060910ia, P.I. A.N.2

What is $\sqrt{32}$ expressed in simplest radical form?

[A] $4\sqrt{8}$ [B] $16\sqrt{2}$

[C] $2\sqrt{8}$ [D] $4\sqrt{2}$

2. 089902a, P.I. A.N.2

The expression $\sqrt{50}$ can be simplified to

[A] $5\sqrt{2}$ [B] $5\sqrt{10}$

[C] $25\sqrt{2}$ [D] $2\sqrt{25}$

3. 010920ia, P.I. A.N.2

What is $\sqrt{72}$ expressed in simplest radical form?

[A] $8\sqrt{3}$ [B] $2\sqrt{18}$

[C] $3\sqrt{8}$ [D] $6\sqrt{2}$

4. 010530a, P.I. A.N.2

When $\sqrt{72}$ is expressed in simplest $a\sqrt{b}$ form, what is the value of a?

[A] 2 [B] 6 [C] 8 [D] 3

5. 060811a, P.I. A.N.2

Which expression is equivalent to $7\sqrt{90}$?

[A] $\sqrt{630}$ [B] $16\sqrt{10}$

[C] $21\sqrt{10}$ [D] $70\sqrt{9}$

6. fall0731ia, P.I. A.N.2

Express $5\sqrt{72}$ in simplest radical form.

7. 080922ia, P.I. A.N.2

When $5\sqrt{20}$ is written in simplest radical form, the result is $k\sqrt{5}$. What is the value of k?

[A] 7 [B] 4 [C] 20 [D] 10

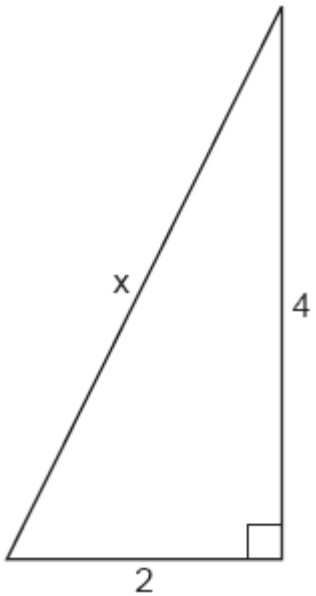
8. 060828ia, P.I. A.N.2

What is $\frac{\sqrt{32}}{4}$ expressed in simplest radical form?

[A] $\sqrt{8}$ [B] $4\sqrt{2}$ [C] $\sqrt{2}$ [D] $\frac{\sqrt{8}}{2}$

9. 080833a, P.I. A.N.2

Theo determined that the correct length of the hypotenuse of the right triangle in the accompanying diagram is $\sqrt{20}$. Fiona found the length of the hypotenuse to be $2\sqrt{5}$. Is Fiona's answer also correct? Justify your answer.



[1] D

[2] A

[3] D

[4] B

[5] C

[2] $30\sqrt{2}$, and appropriate work is shown.
[1] Appropriate work is shown, but one computational error is made.
or [1] Appropriate work is shown, but one conceptual error is made.
or [1] Appropriate work is shown, but the answer is not in simplest radical form.
or [1] $30\sqrt{2}$, but no work is shown.
[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously
[6] incorrect procedure.

[7] D

[8] C

[2] Yes, and both answers are shown to be equivalent using either decimal approximation or simplification of radicals.
[1] Appropriate work is shown, but one computational or rounding error is made.
or [1] Appropriate work is shown, but one conceptual error is made.
or [1] Yes, but an incomplete explanation is given, such as stating that $2\sqrt{5}$ and $\sqrt{20}$ are equivalent or that $\sqrt{20}$ simplifies to $2\sqrt{5}$, but no work is shown to support this.
[0] Yes, but no work is shown.
or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an
[9] obviously incorrect procedure.