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## CHAPTER TEST A

## Algebraic Expressions

## Concepts and Skills ( $10 \times 1$ point $=10$ points)

## Simplify each expression.

1. $9 a-2 a+5 a$
2. $\frac{3}{4} x-\frac{1}{2} x+\frac{1}{8} x$
3. $9.8 y-5.2 x-6.8 y+7.2 x$
4. $\frac{2}{3}+\frac{5}{8} p-\frac{1}{3}-\frac{1}{8} p$

## Expand each expression.

5. $-2.1(3 p-5)$
6. $\frac{1}{4}\left(\frac{m}{3}+\frac{2}{5}\right)$

## Factor each expression.

7. $5 p+35 q$
8. $-18 r-6 s$

Translate each verbal description into an algebraic expression.
Simplify.
9. Three-fifths $x$ subtracted from 4 times one-eighth $w$
10. $60 \%$ of the product of one-twelfth $y$ and two-thirds $z$

## Problem Solving (Questions 11 to $13: 3 \times 2$ points $=6$ points, Questions 14 to $16: 3 \times 3$ points $=9$ points)

## Solve. Show your work.

11. A pencil costs $\$ 3.50$ and a pen costs $\$ 6.70$. Jessica bought $m$ pens. She also bought 4 fewer pencils than pens. Write an algebraic expression for the total amount she spent.
12. There are 26 packets of $p$ almonds and 8 packets of $q$ walnuts. Of the total packets of nuts, ten were given away.
a) Write an algebraic expression for the remaining packets of nuts.
b) Factor the expression.
13. Find the perimeter of the parallelogram.


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\left(10-x+\frac{4}{9} y\right) \mathrm{cm}
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