Algebra and the Number Plane (1b) name .....

1) If $a = 3$, $b = 4$ and $c = 6$ find

a) $a + b + c$
=
=

b) $b^2 + 5$
=
=

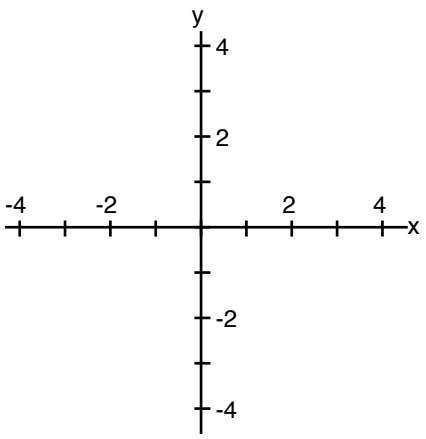
c) $ac + b$
=
=

d) $3c - b$
=
=

e) ab^2
=
=

f) $a^2 b$
=
=

2) Plot the points A(2 , 1) B(-4 , -2) and C(4 , -3)



3) Simplify

a) $5a + 4a =$

b) $13y - y =$

c) $5a + 2b + 5a + 4b$
=

d) $9k + 3h + 2k$
=

e) $4f + f + 3f + 7g$
=

f) $8p + 6q + p + q$
=

g) $5m^2 + 4m + m^2 - m$
=

h) $6p + 7m - p + 3m$
=

i) $8xy + 3g + 3xy - g$
=

4) Simplify

a) $g \times g \times g \times g =$

b) $4 \times k \times k =$

c) $c \times c \times a \times a \times a \times 3 =$

d) $y \times 3 \times y \times y \times 4 \times y =$

e) $h \times h \times h \times h \times h =$

f) $p \times p \times 3 \times k \times p$
=

g) $2 \times t \times t \times 3 \times t \times t \times 5 \times t$
=

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5) Simplify

a) $y^3 \times y^5 =$

b) $a^3 \times a^7 =$

c) $p^7 \times p =$

d) $3y^2 \times 2y^7 =$

e) $5k^3 \times 3k =$

f) $6a^7 \times a^2 =$

6) Expand

a) $3(y - 7) =$

b) $2(6a + 3) =$

c) $7(y - 2) =$

d) $5(y + 6a) =$

e) $8(9 - 3g) =$

f) $2(h + 12) =$

7) Solve

a) $a + 11 = 17$
$a =$

b) $b - 7 = 8$
$b =$

c) $5c = 55$
$c =$

d) $d \div 6 = 4$
$d =$

e) $5e - 7 = 43$
$e =$

f) $3f + 6 = 12$
$f =$

g) $5g - 4 = 36$
$g =$