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

1) If $a = 3$, $b = 4$ and $c = 5$ find

a) $a + b + c$
=
=

b) $b^2 + 5$
=
=

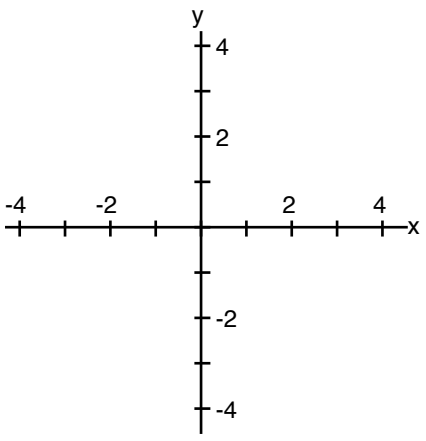
c) $ac + b$
=
=

d) $7c - a$
=
=

e) ab^2
=
=

f) $a^2 b$
=
=

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



3) Simplify

a) $7a + 7a =$

b) $4y - y =$

c) $3a + 5b + 5a + 7b$
=

d) $6k + 5h + 6k$
=

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

f) $5p + 7q + p + q$
=

g) $6m^2 + 2m + m^2 - m$
=

h) $4p + 7m - p + 2m$
=

i) $3xy + 5g + 6xy - g$
=

4) Simplify

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

b) $6 \times k \times k \times k \times k =$

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

d) $3 \times y \times y \times 5 \times y =$

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

f) $p \times p \times 4 \times k \times k \times p$
=

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

5) Simplify

a) $y^4 \times y^2 =$

b) $a^5 \times a^6 =$

c) $p^3 \times p =$

d) $9y^4 \times 5y^7 =$

e) $3k^8 \times 3k =$

f) $4a^3 \times a^4 =$

6) Expand

a) $8(y - 7) =$

b) $4(3a + 4) =$

c) $8(y - 5) =$

d) $2(y + 5a) =$

e) $6(3 - 2g) =$

f) $3(h + 9) =$

7) Solve

a) $a + 15 = 21$
$a =$

b) $b - 6 = 11$
$b =$

c) $5c = 40$
$c =$

d) $d \div 5 = 9$
$d =$

e) $5e - 7 = 28$
$e =$

f) $3f + 1 = 25$
$f =$

g) $6g - 2 = 28$
$g =$

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