

Algebra and the Number Plane (1a) name

1) If $a = 2$, $b = 5$ and $c = 6$ find

a) $a + b + c$
=
=

b) $b^2 + 3$
=
=

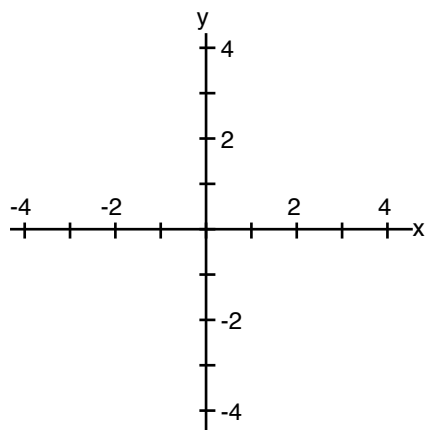
c) $ab + c$
=
=

d) $3c - a$
=
=

e) ab^2
=
=

f) $a^2 b$
=
=

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



3) Simplify

a) $7a + 4a =$

b) $11y - y =$

c) $2a + 3b + 5a + 4b$
=

d) $11k + 8h + 2k$
=

e) $2f + f + 3f + 6g$
=

f) $7p + 2q + p + q$
=

g) $2m^2 + 3m + m^2 - m$
=

h) $8p + 5m - p + 2m$
=

i) $7xy + 5g + 2xy - g$
=

4) Simplify

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

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

c) $c \times c \times a \times a \times 5 =$

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

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

f) $p \times p \times 7 \times k \times k \times k \times p$
=

g) $2 \times t \times t \times 4 \times t \times t \times 5 \times t$
=

5) Simplify

a) $y^4 \times y^5 =$

b) $a^7 \times a^2 =$

c) $p^5 \times p =$

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

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

f) $6a^7 \times a^3 =$

6) Expand

a) $5(y - 2) =$

b) $4(2a + 3) =$

c) $7(y - 1) =$

d) $8(y + 3a) =$

e) $4(9 - 4g) =$

f) $5(h + 12) =$

7) Solve

a) $a + 9 = 13$
 $a =$

b) $b - 5 = 8$
 $b =$

c) $6c = 18$
 $c =$

d) $d \div 5 = 4$
 $d =$

e) $3e - 1 = 23$
 $e =$

f) $5f + 3 = 53$
 $f =$

g) $4g - 5 = 23$
 $g =$

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