

Distributing - NOTES

Simplify each expression. *MULTIPLY*

1) $8(-2 - 5m)$
 $-16 - 40m$

2) $6(n - 3)$
 $6n - 18$

3) $10(8b + 7)$
 $80b + 70$

4) $7(6 + 3v)$
 $42 + 21v$

5) $-10(-6 + 8m)$
 $60 + -80m$

6) $-2(b - 8)$
 $-2b + 16$

7) $10 + 7(-x - 5)$
 $10 + -7x - 35$
 $-25 + -7x$

8) $9(-7a - 7) + 3$
 $-63a - 63 + 3$
 $-63a - 60$

9) $-4 + 2(-5 - 8x)$
 $-4 + -10 - 16x$
 $-14 - 16x$

10) $9(8p + 2) - 1$
 $72p + 18 - 1$
 $72p + 17$

Solve each equation.

11) $5(1 + 4r) = 125$
 $5 + 20r = 125$
 -5 -5
 $20r = 120$
 $\frac{20r}{20} = \frac{120}{20}$
 $r = 6$

12) $144 = 8(8k - 6)$
 $144 = 64k - 48$
 $+48$ $+48$
 $192 = 64k$
 $\frac{192}{64} = \frac{64k}{64}$
 $3 = k$

13) $-3(4k + 3) = -81$
 $-12k + 9 = -81$
 $+9$ $+9$
 $-12k = -90$
 $\frac{-12k}{-12} = \frac{-90}{-12}$
 $k = 7.5$

14) $-200 = 8(7 + 4p)$
 $-200 = 56 + 32p$
 -56 -56
 $-256 = 32p$
 $\frac{-256}{32} = \frac{32p}{32}$
 $-8 = p$