## Alphametics (cryptarithms)

All these alphametics were (re)discovered by me during my schooldays and student days (the period 1970-75, approximately). The asterisked* ones were used, with my permission, by J.A.H. (Jim) Hunter in his column that appeared in the Eastern Daily Press and elsewhere. In some cases Jim Hunter reworded them for publication. Some of the alphametics with mathematical themes appeared in Eureka.

All are believed to have unique solutions in base 10 , with each letter representing a different digit and no leading zeroes.

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1. RISE + RISE + RISE = SIRE.*
2. ONE + ONE = TWO and TWO + TWO + NOT = ALL (simultaneous
alphametics).
3. MAN + HAD = MINI.
4. EAT + EAT + EAT = BEET.
5. SIP + SIP = NIPS.*
6. HATE + HATE + WET = WHEAT.*
7. TNT + TNT + A = BANG.*
8. FEW + FEW + HAVE = SAABS.
9. BAD + LAD + HAD = BALL.
10. ONE + ONE + ONE + NOT = TWO. (Due to Jonathan Wortley.)
11. PET + WET + YET = WELL.* (A unique solution for WELL.)
12. DRIVE + DRIVE = HITHER.
13. AMOS + SOME = MONEY.
14. TNT + TNT + TNT = DIN.
15. POP + POP = CORK.
16. BAN + SODA + BAN = HOOCH.*
17. FIRE + FIRE = RISES.
18. RISE + RISE + RISE = PRICE.
19. FIVE + FIVE = EVEN. (Of course FIVE is really ODD!)
20. FORTY + TEN + TEN = SIXTY. (I was not the first to find this.)
21. AN + EASY + EASY + EASY = TEASE.
22. MAN + WIN = MINI.
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23. BOSS + BOSS + BOSS + BOSS = ORDER.
24. BOOBS + BOOBS = ERROR.
25. NEVER + NEVER + NEVER = STRIVE.
26. RACE + RACE = THERE.
27. LAD + LAD = ADD.
28. A + GAS + GAS = BANG.
29. MELON + MELON + MELON = LEMON. (Due to my mother.)
30. SON + SON + ON = MOON.
31. FEAR + FEAR = SCARE.
32. FEARS + FEARS + WERE = SCARES.*
33. HELLS + HELLS + HELLS = ANGELS.
34. TOO + TOO + TOO + TOO = HOT.
35. FORCES + FORCES + FORCES = STRESS.
36. HAMLET * A = TRAGEDY.
37. DESERT + DESERT = SAHARA.
38. A + SMALL + SMALL = TUSSLE.
39. BARLEY + BARLEY = HARVEST.
40. EGGS + EGGS + EGGS = HATCH.
41. BOW + WOW = WOOF.
42. WOOL + WOOL = LAMBS.
43. ACT * 75 = PARTS.
44. ICE * ICE = IGLOO.
45. APPLE + APPLE + HELPS = NEWTON.
46. A + BARLEY + BARLEY = HARVEST.
47. A + TEASE + TEASE + TO + SOLVE = PLEASE.
48. EFFORT + EFFORT + FOR + AN = ATTEMPT.
49. TOBEOR + NOTTO + BE = HAMLET.
50. EUREKA + EUREKA + AN = ANSWER.
51. NOISY + BELLS + LOUDLY + LOUDLY = SOUNDED.
52. LIES + LIES + ALL = FALSE.
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53. EAT + EAT + EAT = LESS.
54. NEON + NEON + NEON = INERT.
55. EGG * EGG = OVOID.
56. INERT + INERT + NOT = ACTIVE.
57. LATEST + LATEST + IS = RECENT.
58. GREEK + GREEK + WORD = EUREKA.
59. WAGNER + WAGNER + WROTE = OPERAS.
60. DETECT + DETECT + A = MURDER.
61. DO * THIS = TEASER.
62. DEALER + SELLER + AND = PARTNER.
63. KLEIN + KLEIN = BOTTLE.
64. TEAR + TEAR + A = PAPER.
65. SEE + SEE + BY = EYES.
66. HIT + HIT = MISS.
67. LOOK + LOOK + LOOK = DAVID.
68. EAT + EAT + EAT = CAKE.
69. EULER + EULER = FERMAT.
70. A + LEMMA + LEMMA = GAUSS.
71. PIERRE + PIERRE = FERMAT.
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Most of these have been checked using an excellent alphametic solving program due to Truman Collins.

Jonathan Partington, last modified March 2nd 2003

