

# I'VE BROKEN MY WORD

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This is a special kind of search-a-word puzzle. It may be new. Words are built from frags instead of single letters. Each word consists of two but mainly three frags in a line. Read in any orthogonal or diagonal direction; for example, VERY DELI is read as DELIVERY. Note USE TEN HYPO (HYPOTENUSE) on a diagonal in the upper left.

ran	aft	erst	rain	rest	very	deli	con	pro	torn	ado
dom	rot	herb	hypo	gut	ess	stab	neat	wind	rat	mead
wise	feat	ten	ret	thin	less	tin	lest	ion	owl	able
hem	use	but	ear	ouch	deal	raw	bat	and	meat	ess
ant	rho	outs	term	dish	able	coho	pump	kin	seed	per
fend	bee	scat	tan	ilk	one	crib	list	wise	cute	par
code	free	inks	land	ding	rose	sty	subs	era	acre	corn
ins	uses	orb	mot	side	hair	wood	hyp	sol	fed	dom

All of the three-frag words used in the above are in the following list. To start this game, I tested my 10-, 11- and 12-letter word lists against short lists of common 3- and 4-letter words. My computer found about 2300 long words that split into three short ones. Many splits, for example SIDE.STEP.PING, were trivial. I hand picked the following; most were chosen because neither of the two 2-frag combos make a word. The above was built from the chosen 3-frag words as far as possible, then filled in with 2-frag words. SEEDKIN was gratuitous.

ado.rat.ion	aft.erg.low	aft.erg.rave	aft.erg.rind
aft.erst.rain	alto.get.her	ant.hero.ids	ant.ibis.hop
arm.aged.don	bed.evill.ed	bee.rho.use	bee.roc.racy
beet.lest.one	bell.wet.her	but.term.ilk	cab.all.eros
cab.leg.ram	cam.elk.need	camp.holy.tic	cant.holy.sis
car.eta.king	char.gel.ess	char.tho.use	code.fend.ant
cog.over.nor	coho.bat.ion	coma.gist.racy	con.stab.less
cons.tip.ate	cop.lain.tiff	cope.net.rate	corn.erst.one
dam.self.lies	dams.elf.lies	deal.coho.list	deli.neat.ion
den.tap.hone	den.tip.hone	dish.ear.ten	dish.eve.led
dish.one.sty	ear.thin.ess	far.thin.gale	feat.herb.rain
fed.era.list	fell.owl.ess	fib.rob.last	fila.men.tule
flu.ores.cent	for.echo.ice	gab.ion.age	gal.log.lass
gang.lion.ate	hair.sty.list	heal.thin.ess	hem.auto.gram
hem.ion.uses	hyp.era.cute	hypo.ten.use	inks.tan.dish
ken.sing.ton	lair.doc.racy	leg.ate.ship	lit.any.wise
lit.hot.rite	lit.term.ate	may.oral.ties	mead.owl.and
mead.owl.ark	men.arc.heal	men.deli.zing	met.able.tic
mil.list.ere	mot.orb.oats	mot.orb.uses	need.lest.one
nigh.tin.gale	outs.tan.ding	par.acre.sol	pat.holy.sis

pat.home.try	per.meat.ion	pet.tic.oats	prim.eve.rose
prim.rose.tide	pro.rat.able	pro.tome.rite	prop.ion.ate
pros.the.sis	pros.the.tic	pump.kin.seed	rep.rose.cute
sac.char.ate	sac.hem.ship	sac.hems.hip	scat.term.ouch
shad.owl.and	sin.glen.ess	sol.die.ring	son.anti.zed
sou.sap.hone	spas.moly.tic	stab.lest.and	subs.crib.able
sup.ram.oral	swan.kin.ess	tan.ace.tone	tan.gent.ally
tart.ram.ate	the.rap.hose	the.rape.uses	tin.tome.try
tit.rime.try	vent.rime.son	weal.thin.ess	wee.ken.ding
wind.lest.raw	wind.owl.ess	wise.acre.dom	wit.herb.and

After developing the above, I recognized the existence of what I call T-frags. When we break a word into three parts, we can call the parts B-frags, M-frags and E-frags, depending on whether they occur in the beginning, middle or end of the word. A T-frag (T for triple) is one that can serve as either a B-frag, M-frag or E-frag. Since T-frags are obviously valuable for this kind of puzzle, I widened my search limits to include 13-letter words and 2-letter word frags and went through my data a second time. The following were identified as T-frags.

ace act ads after ale am amp an and ani ant antic arch are art as at  
 aver ball base be bed bit bon boy break bug burn but by cant carp cast  
 cent chin coat cord cost craft cut dam den dent ding do don dress en  
 end ere face fat fend flex flow foot fore form gal gene germ gig gin  
 gram hand head her here hic hid hip hop house human in ins is ken key  
 king land leaf lee lent lion lo ma man mar men metal mete mid my net  
 nit nor of other out pal part past pen per perm pert pet phone pi pin  
 poly port pot press proof pus quest race rain ram ran rat rebel red  
 rest right ring room rough row sand ship side sin slip some son sonic  
 spin stead stern stone sty tail tan tar tee ten tent tens test the  
 then therm thing thy ti tile tin tip to tone tool top tour tract train  
 try under vice ward ware way west will woman work

Here are sample uses of all the 5-letter T-frags. For a few of the T-frags, I found only the one set of words given here. As yet, I have not built any puzzles from this larger set of data.

the.re.AFTER.bra.in, mid.AFTER.noon  
 poco.cur.ANTIC.lock.wise, gig.ANTIC.ally  
 he.art.BREAK.he.ads, post.BREAK.fast  
 bra.in.CRAFT.in.ess, air.CRAFT.man  
 mi.sad.DRESS.in.ess, ad.DRESS.ees  
 boar.ding.HOUSE.rid.den, ware.HOUSE.man  
 pro.to.HUMAN.is.tic, trans.HUMAN.ate  
 pro.to.METAL.bum.in, mono.METAL.list  
 for.em.OTHER.whit.her, end.OTHER.my  
 lit.ho.PHONE.tic.ally, hyper.PHONE.sis  
 mi.sex.PRESS.man.ship, ex.PRESS.ion  
 hum.or.PROOF.re.ad, lie.PROOF.lier  
 re.con.QUEST.ho.use, re.QUEST.ion  
 pro.to.REBEL.pro.of, semi.REBEL.lion  
 tit.he.RIGHT.hear.ted, ref.RIGHT.en  
 el.lip.SONIC.at.ion, par.SONIC.ally

mid.den.STEAD.in.ess, over.STEAD.fast  
 mid.we.STERN.fore.most, con.STERN.ate  
 bra.in.STONE.ma.son, brim.STONE.wort  
 poi.kilo.THERM.anti.dote, fur.THERM.ore  
 dog.too.THING.liken,ess, far.THING.ale  
 sub.con.TRACT.ell.ate, ex.TRACT.ion  
 anti.eyes.TRAIN.lo.ads, cons.TRAIN.able  
 the.re.UNDER.is.sue, re.UNDER.cut  
 pan.try.WOMAN.pro.of, work.WOMAN.like

## Solving and Constructing Crossword Puzzles

Word Ways readers who own IBM-compatible computers (8086 or higher, DOS 3.3+, 1.6 megabytes on a hard disk, 512 kilobytes of RAM) may be interested in Wordly Wise, a program to aid either the crossword constructor or solver. The constructor can readily create a grid by specifying a pattern of black and white squares, and enter automatically (in either "pencil" or "ink") letters or words therein. To assist in clue-writing a cryptic tutorial is provided. Similarly, the solver can reproduce a grid given in a newspaper or magazine. The program provides various tools for the latter that have inherent use for the logologist:

- \* all anagrams of a set of letters or any subset (CARE: acre race are car ear era rec rae ace arc re ac ar ea ra)
- \* all words containing letters in specified positions (C..B: Cobb comb chub club crab crib curb)
- \* all words containing letters in specified order (RA,K,D: raked racked ranked rankled racketed ransacked racketeered)
- \* all words inside words (USHER: us she he her er)
- \* all words that sound at least vaguely like a target word

More complex screenings can be devised by using two or more tools in sequence.

The dictionary on which this is based contains 160,000 words, including derived forms such as plurals or past tenses--adequate for the crossword constructor or solver, but a bit confining to the serious logologist who is accustomed to working with all the boldface entries in an unabridged dictionary. Wordly Wise is available for \$59.95 postpaid from Sapphire, PO Box 4848, Rednal, Birmingham B459SZ, England.