*When are Near Squares useful? What do they look like?*

It works great for the tricky 6s facts. Also 8s and 9s. Have a look!



*Skylar was arranging polaroid photos on her wall*. *She wants to arrange them in 7 groups of 8. How many polaroid photos will she be able to fit?*



Students usually have an easier time memorizing their squares. Squares are very beneficial because they are close to some of the toughest multiplication facts (such as 7 × 8). Here, it is easier for students to add 7 to 49 since they know 7 × 7 rather than adding 7 groups of 8 (or 8 groups of 7) or skip counting.



If your child knows the square of 5 (5 × 5=25), they can use this to solve their 6 facts. Have a look at a fact that is commonly difficult for students: 5 × 6 or 6 × 5.





*(see “fact #5” below)*

Knowing squares and near squares can be helpful with solving problems with larger numbers mentally

– *very useful*! Examples:

***Thank you for your support in developing fact fluency with your child!***



**, Gam:,es for *Near Squares* and Learning Facts**

**16AIM E:** *Squares/Near Squares Bingo* (2+ playe rs.)

M ate rials;

5 x 5 blaink grids/ bingo bo a rds fo r eac pl!IJYM

Bilflgo c hips/ oount e rs (e . g., pe n nte s/ c o in s. w ould wor k)

Dec k of pl ay i rn,g c ar cls 1-10 ,(ace "'1. queen "" oi

**Howtll:I** p'.l\ay

1 . Befu r e be gi n111ine; tine ga flllle, be s1.1re to p o st *a* li s.t oft e s qu1a re ipro d 1.1cts : 0 , l., 4 , '9, 1 6 , 25 , 36 , 4 9, 64 , 81., and

1 00 .

**Z. Pl .n;** CQPY th e r,iu1m lbers int o tlneir ga flllles b o.;i rd 5,, Some nurn b r5, wi II be re pe are ,d a nd 111ot a ll n1.1mben;

**mi!€d** to b@ t.1s@ d.

1. Parent ,(or desienated leader ) dr.a ws .;i card from the deck. Pl aye rs w illl .sq1.1are that 11u mb er a cl cover their

ans we r on t he ir bo aird .

1. Playe ,rs cover on S¢1LJa,r e at a tiime Jorily Olile chip cao be p,llaced ancil chiips al'lliot lbe moved orice they've been

place d j.

5\_ Tti'ie fl rs t p lay,er 'l!IO geit fr,.,e in a, row ,[hor i ro n 'l:alfy, *ve* r lc:all y, o r d i a,gon ally) wins;\_

**Gam,e : *Fix,ed F.crcto,r- War*** ,(Game 32, p, 88 , *Math Pa ct* Pluency}(2 pllayen ;.j

**Ma tteriia1ls:**

•

l),eck o f ca rds, 'With t::iirn g s a nd Ja cks re m o ve d ..Q ue e rns "' 10 ; Ace s ., **1.**

How *to* Play:

l. Fin d .;i 6 in th@ de ck, m d p la o @ irl: betw@@n th@ two pla y @rs {or 7 or S) fac.e up. Th.at nu m b@r is th!!: f i:x@d

factor.

2. l) eal t h@ rns t of t he cardis. ,f! q u alt y, facf! down \_

3, Eaclh pl ayer t a,ke.s. a t 1.1rn to f li p over the t op card of his/, h er pile of cards. The pfaiyer m1.1st st a;t e tihe

p rodu ct of t hle " f ixed " factor ca rd ;an d the caiird t lney fli p p ed, an d shaire how they know (see exa11rnple

b@lo w ) \_

4 . The pla yer wiho cor rect ly-st ait es tlhe gre-at er pro duct in tlhe ro urnd gets both pla1,1er s.' cards- (The Mm i d dle n fii x,e d f act or card stays .}

S, ff t here is ai ti e, a uwar isded.a,r ed, and pl.aye r s re pea t the p ro c..es.s., w it h tlhe winr1e r t akir111: a ll p ja ye d

ca rd s \_

6 , The pla yer wlth the mo.s,t cards wins when time is 11 .1p.

More ways to pl!a y: Use d iffe r@ nt Fi xed h cto rs {12 .g .,. 9, ) \_ Pla y *Factor Wa.r* - o f ix12d h ct o r , each pltaye r d r a w s 2

car ds. Play **with** additi on, to o ! *(fl 'x,er:I Adr:lem:J War* or *Addend War )*

|  |  |
| --- | --- |
|  | * • •
 |
|  | * ♦ ♦ g
 |

**Fiixe d** F acto r **Card :**

does mot ,cha n ge