Extension Skills 78-88

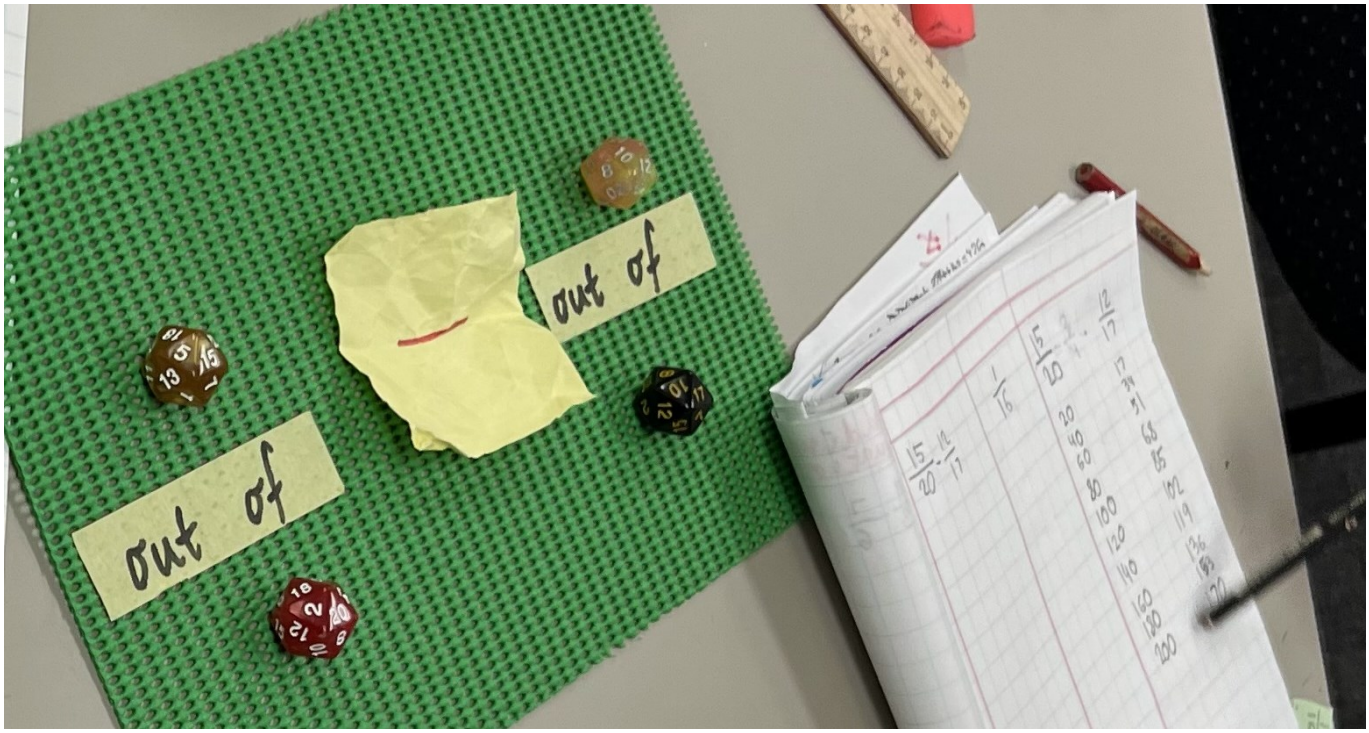
These skills are for extension use only, following completion of Skills 21-77, or assessment using the *Fluency Interview* that indicates a student is developmentally ready for these challenges.

Skills prior to this have included 15 practices, however, for the extension skills, most require only 10 practices due to the complexity of the mental maths involved.

These skills are mostly Year 6 level, but when achieved at pace, would be considered extension level as fluent mental maths skills.

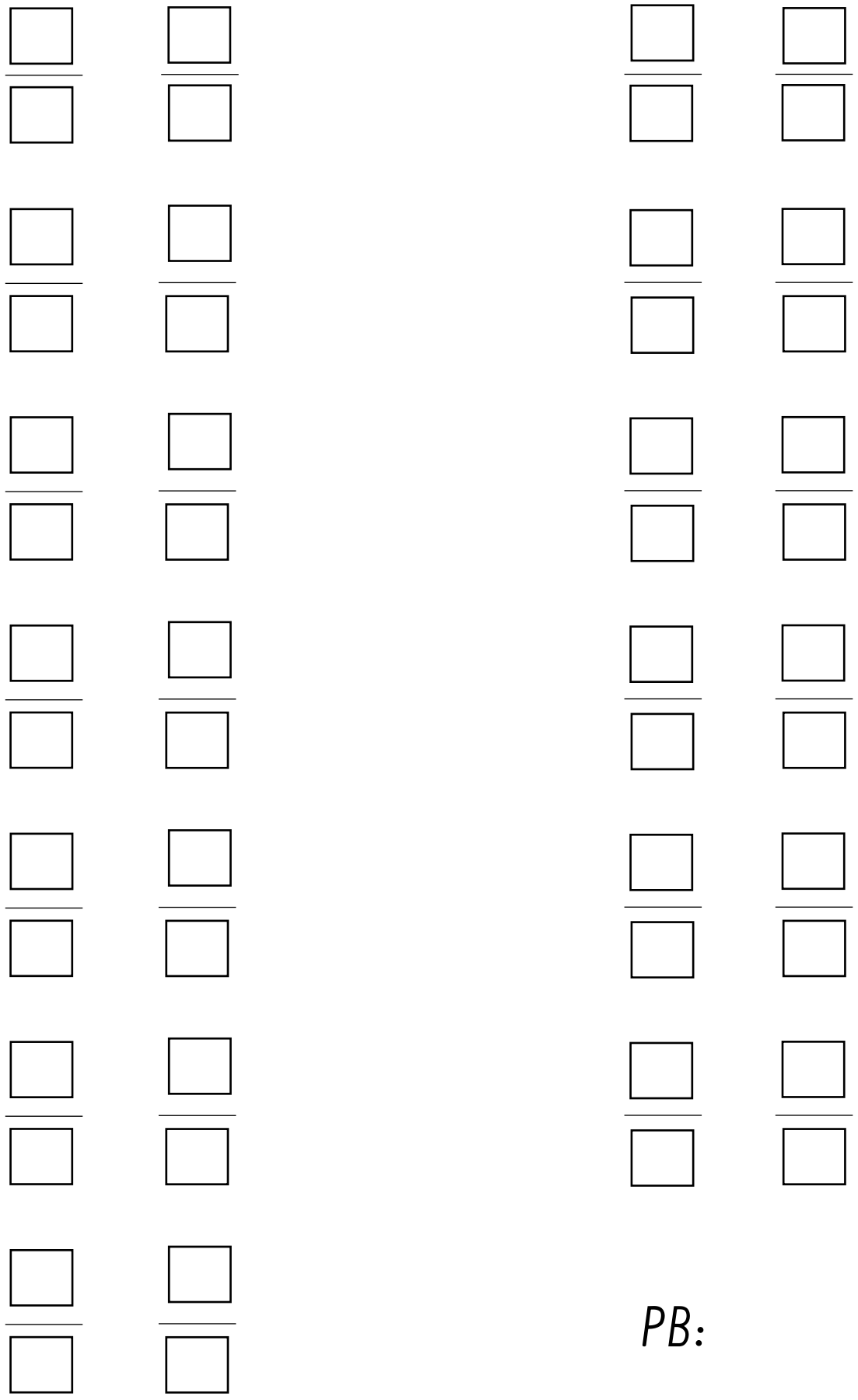
Fractions ‘out of’ grip mat set up for many of the skills that follow

Use masking tape to create the vinculum, recording ‘out of’ onto this.



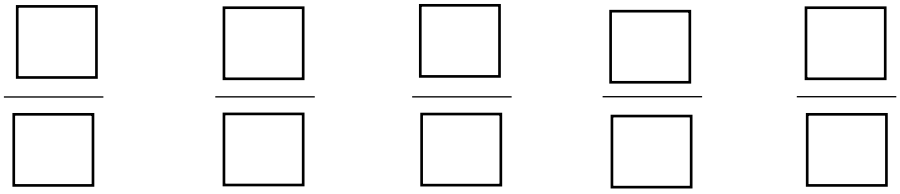
Roll four 10-sided dice. Compare the two fractions using < = > signs.

Think about more or less than half and visualising.



PB:

Pull cards (remove 10 and picture cards) to create numbers to fill the spaces below. Place each proper fraction, decimal and percentage on the number line. Only create proper fractions.



0._ 0._ _ 0._ _ _

0._ 0._ _

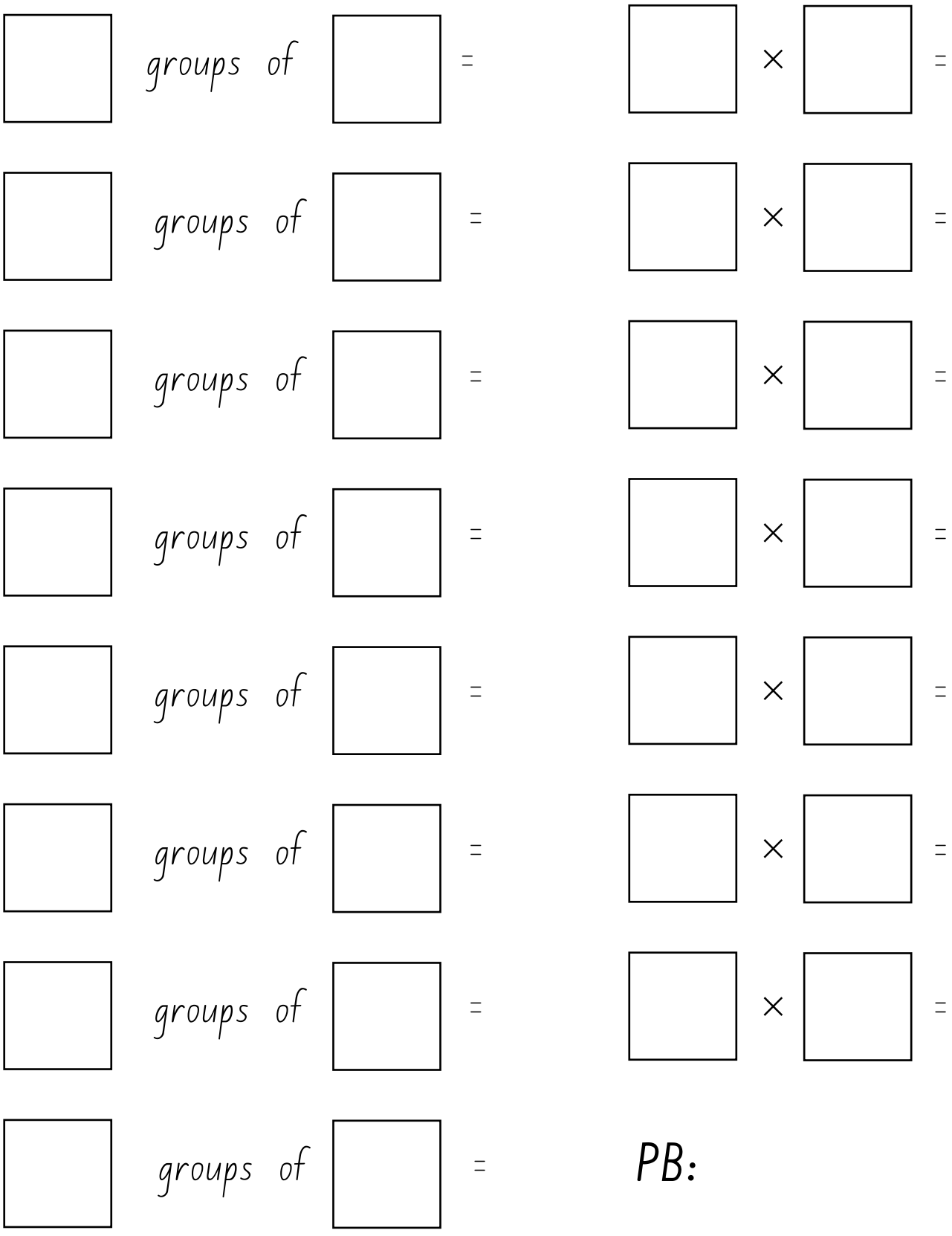
_ _ % _ _ % _ _ %

_ _ % _ %

0 1

Pull two cards from the deck (remove 10 and picture cards) to create a two-digit number. Multiply by another card (single-digit).

Use all multiplicative strategies (**solve mentally**).



Pull cards to fill the blanks (remove 10 and picture cards), adding mentally. *Think back to all your most efficient strategies for mental addition.*

__ __ . __ + __ __ . __ __ =

__ . __ __ __ + __ __ . __ =

__ . __ + __ __ . __ __ __ =

0 . __ __ __ + __ . __ __ =

__ __ __ . __ __ + __ __ __ __ . __ =

__ __ . __ __ + __ . __ __ __ =

__ __ __ . __ __ + __ . __ =

__ . __ __ + __ . __ __ __ =

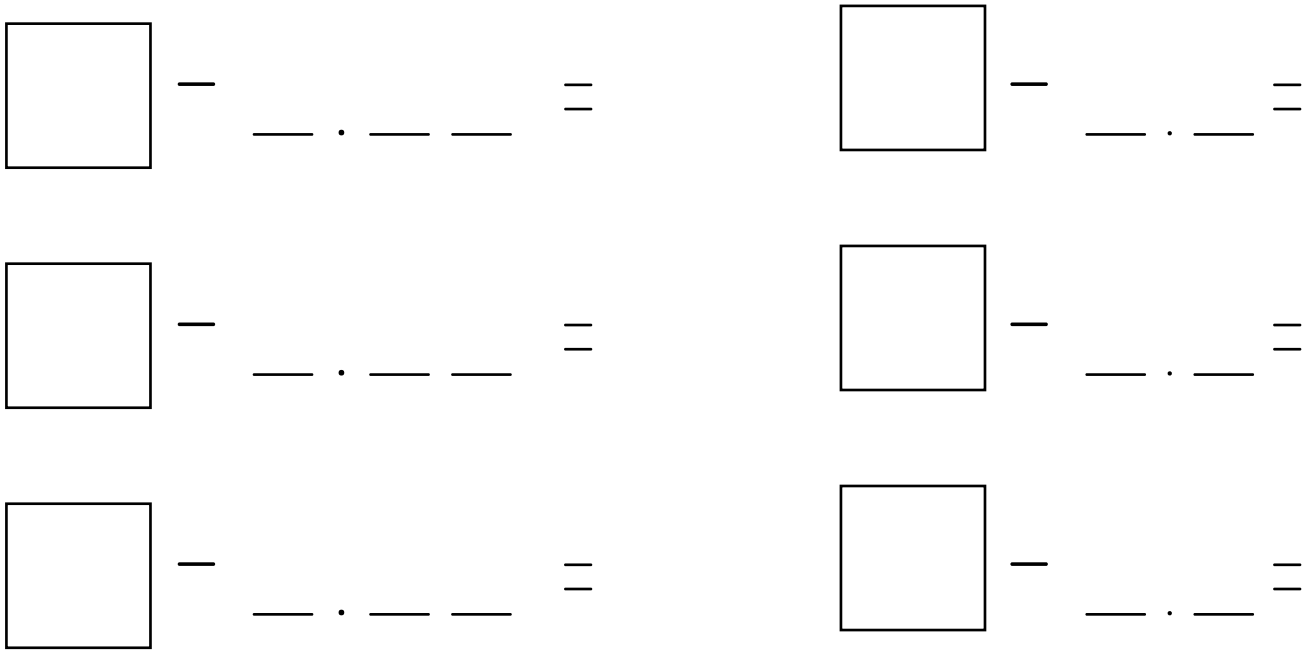
__ . __ + __ __ . __ =

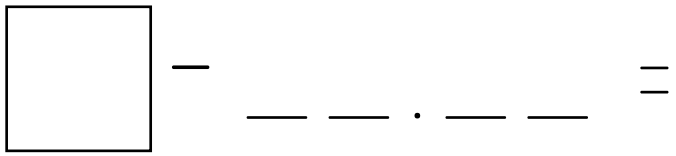
__ . __ __ __ __ + __ __ . __ =

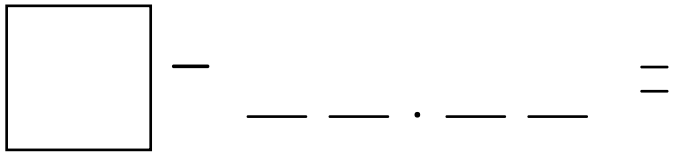
PB:

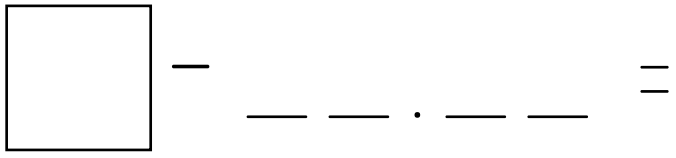
Roll a tens place value dice for the cash notes in your wallet/purse.
Pull cards to work out how much you spent (arrange it so that you do not end up spending more than you have if possible; otherwise answer as a negative number in debt). Mentally calculate the change.

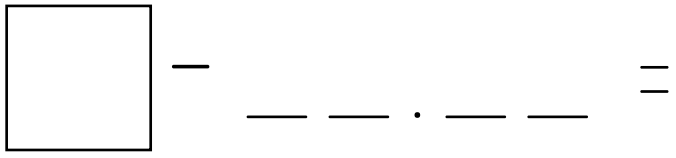
Consider using a jump the difference (build uplthink addition) strategy.











PB:

Pull playing cards (remove 10 and picture cards) to generate an item's price and its discount code, as a percentage off.
Calculate the new price of the item based on the discount percentage.

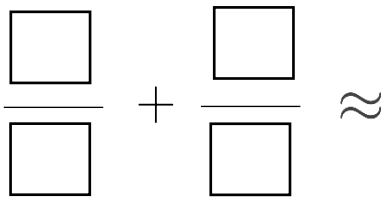
Original price	Discount code	New price
__ __	__ __ %	=
__ __	__ __ %	=
__ __ . __ __	__ __ %	=
__ __ . __ __	__ __ %	=
__ __	__ %	=
__ __	__ %	=
__ __ . __ __	__ %	=
__ __	__ . __ %	=
__ __	__ . __ %	=
__ __ . __ __	__ . __ %	=

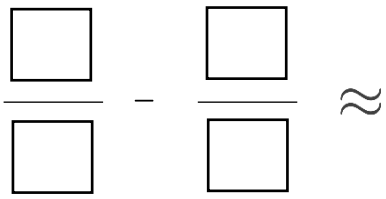
PB:

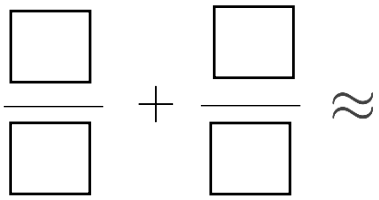
Roll 4 dice onto a fractions ‘out of’ grip mat.

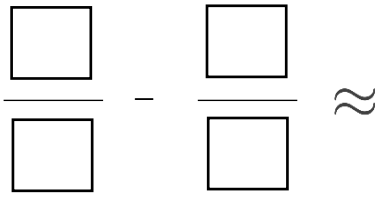
Estimate to the nearest whole or half (do not answer).

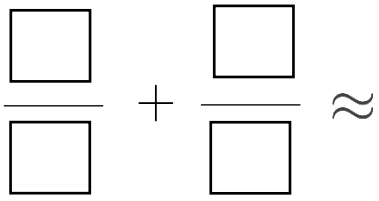
Use at least 5 improper fractions.

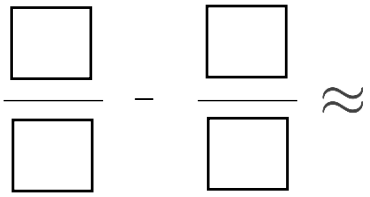


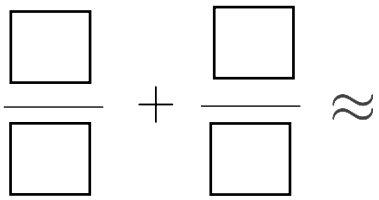


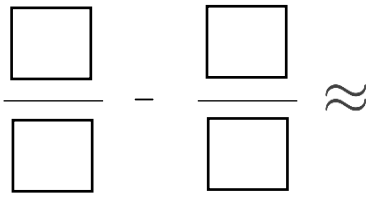


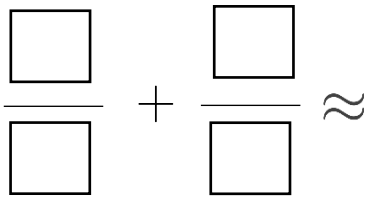


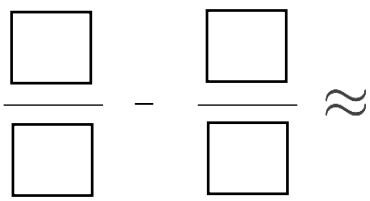












PB:

Roll 4 dice onto a fractions ‘out of’ grip mat.

Add the fractions together to answer precisely.

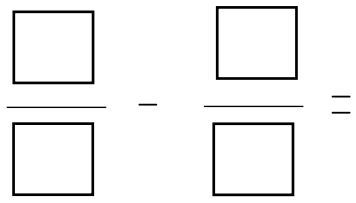
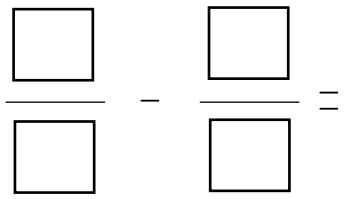
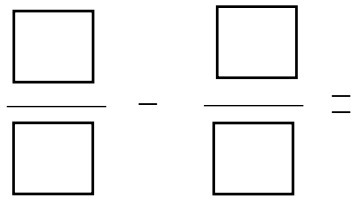
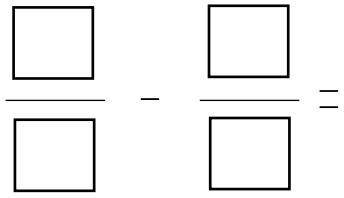
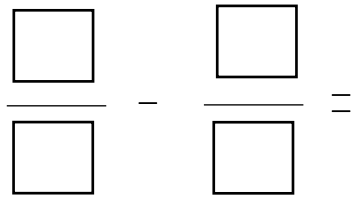
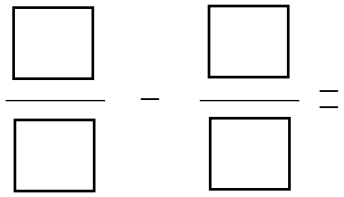
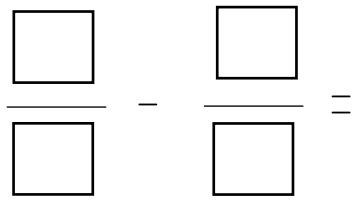
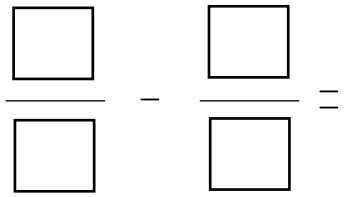
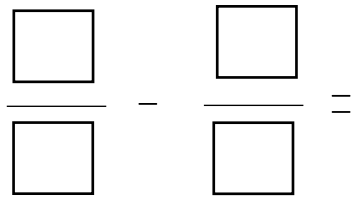
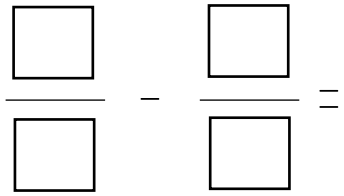
Use at least 5 improper fractions.

PB:

Roll 4 dice onto a fractions ‘out of’ grip mat.

Work out the subtraction/difference as a precise answer.

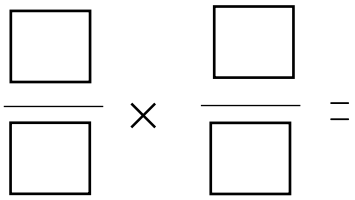
Use at least 5 improper fractions.

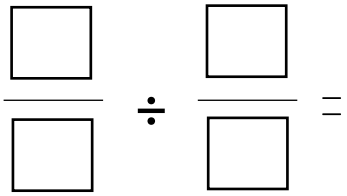











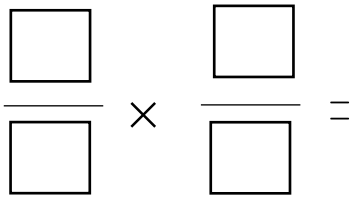
PB:

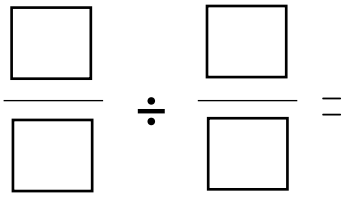
Roll 4 dice onto a fractions ‘out of’ grip mat.

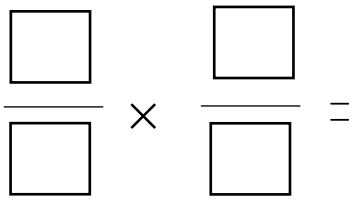
Multiply or divide the fractions to calculate the answer.

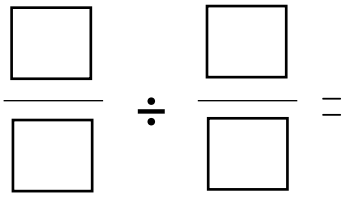


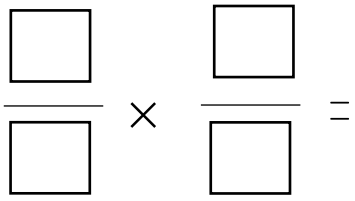


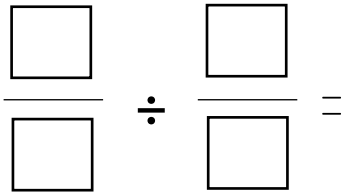


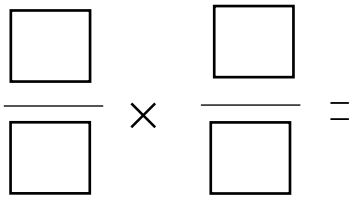


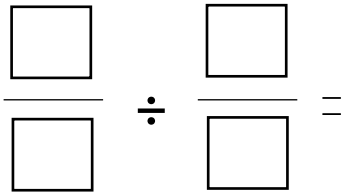












PB:

Pull cards to fill the blanks (remove 10 and picture cards).
Estimate the answer mentally (do not answer).

__ . __ × __ . __ ≈

__ . __ __ × __ __ . __ ≈

__ . __ × __ __ . __ __ __ ≈

0 . __ __ __ × __ . __ __ ≈

__ __ __ . __ __ × __ __ __ __ . __ ≈

__ __ . __ __ ÷ __ ≈

__ __ __ . __ __ ÷ __ ≈

__ . __ __ ÷ __ . __ ≈

__ __ __ . __ ÷ __ __ . __ ≈

__ __ __ . __ ÷ 0 . __ __ __ ≈ PB: