Big Ideas Math®

P or P
(Parallel or Perpendicular)

▶ Materials:

- Equation cards
- Relationship cards
- Paper
- Pencil
- Equation sheet
- Timer

▶ Directions:

Students play in two large groups.

1. Divide the students into two teams. Each team needs one set of equation cards, one set of relationship cards, and one equation sheet.
2. One student from each team gives one equation card to each team member and flips over a relationship card.
3. On the count of three, the timer begins, and students turn over their cards. Students work as a group to find pairs of equations with the relationship stated on the relationship card.
4. For one minute, students record as many pairs of equations as possible on the equation sheet.
5. After each round, the cards in each stack are collected and shuffled, and a new round begins.
6. Each correct pair is worth one point.

▶ Who Wins?

The team with the highest number of points wins.

▶ Tip:

The timer should be large and visible for all students.

BIG IDEAS LEARNING®

Equation cards for P or P

Equation 1 $y = -5x + 10$	**Equation 2** $y = -3x + 11$	**Equation 3** $3x + 3y = 18$
Equation 4 $2y - 4x = 12$	**Equation 5** $6y - 24x = 48$	**Equation 6** $y + 1 = -5x$
Equation 7 $12x + 4y = 0$	**Equation 8** $8y = -8x + 8$	**Equation 9** $y = 2x - 14$
Equation 10 $y = 4x - 11$	**Equation 11** $12x + 3y = -39$	**Equation 12** $y = -2x - 4$
Equation 13 $y = x + 11$	**Equation 14** $3y = 9x + 15$	**Equation 15** $y = 5x - 10$
Equation 16 $2y = -8x$	**Equation 17** $y + 13 = -2x$	**Equation 18** $y - 3 = x$

Equation 19 $-3x + y = -3$	**Equation 20** $25x - 5y = 65$	**Equation 21** $y = -\frac{1}{5}x + 15$
Equation 22 $y - 4 = -\frac{1}{5}x$	**Equation 23** $2y + \frac{1}{2}x = 18$	**Equation 24** $y + 7 = -\frac{1}{4}x$
Equation 25 $y = -\frac{1}{3}x - 4$	**Equation 26** $x + 3y = 39$	**Equation 27** $5y + 5x = -10$
Equation 28 $4y = 4x - 44$	**Equation 29** $y = \frac{1}{3}x + 8$	**Equation 30** $-2x + 8y = 88$
Equation 31 $14 + y = -\frac{1}{2}x$	**Equation 32** $-9 + y = -x$	**Equation 33** $4y - 2x = -20$
Equation 34 $6y = 2x - 42$	**Equation 35** $y - \frac{1}{5}x = 9$	**Equation 36** $y = -\frac{1}{2}x - 11$

Equation 37 $y = x - 10$	**Equation 38** $16 + 2y = x$	**Equation 39** $y + 1 = \frac{1}{4}x$
Equation 40 $5y - 10 = x$		

Relationship cards for P or P

parallel	**parallel**	**parallel**
parallel	**parallel**	**parallel**
parallel	**parallel**	**parallel**
perpendicular	**perpendicular**	**perpendicular**
perpendicular	**perpendicular**	**perpendicular**
perpendicular	**perpendicular**	**perpendicular**

Equation sheet for P or P

Equation #	Equation #	*Parallel* or *Perpendicular*?

Answers for P or P

Parallel Equation #s

1 + 6	13 + 37
2 + 7	13 + 28
3 + 8	21 + 22
4 + 9	23 + 24
5 + 10	25 + 26
11 + 16	27 + 32
12 + 17	28 + 37
13 + 18	29 + 34
14 + 19	30 + 39
15 + 20	33 + 38
3 + 27	31 + 36
3 + 32	35 + 40
8 + 27	18 + 37
8 + 32	18 + 28

Perpendicular Equation #s

1 + 35	7 + 29	13 + 27
1 + 40	7 + 34	13 + 32
2 + 29	8 + 13	14 + 25
2 + 34	8 + 18	14 + 26
3 + 13	8 + 28	15 + 21
3 + 18	8 + 37	15 + 22
3 + 28	9 + 31	16 + 30
3 + 37	9 + 36	16 + 39
4 + 31	10 + 24	17 + 33
4 + 36	10 + 23	17 + 38
5 + 23	11 + 30	18 + 27
5 + 24	11 + 39	18 + 32
6 + 35	12 + 33	19 + 25
6 + 40	12 + 38	19 + 26
20 + 21	20 + 22	