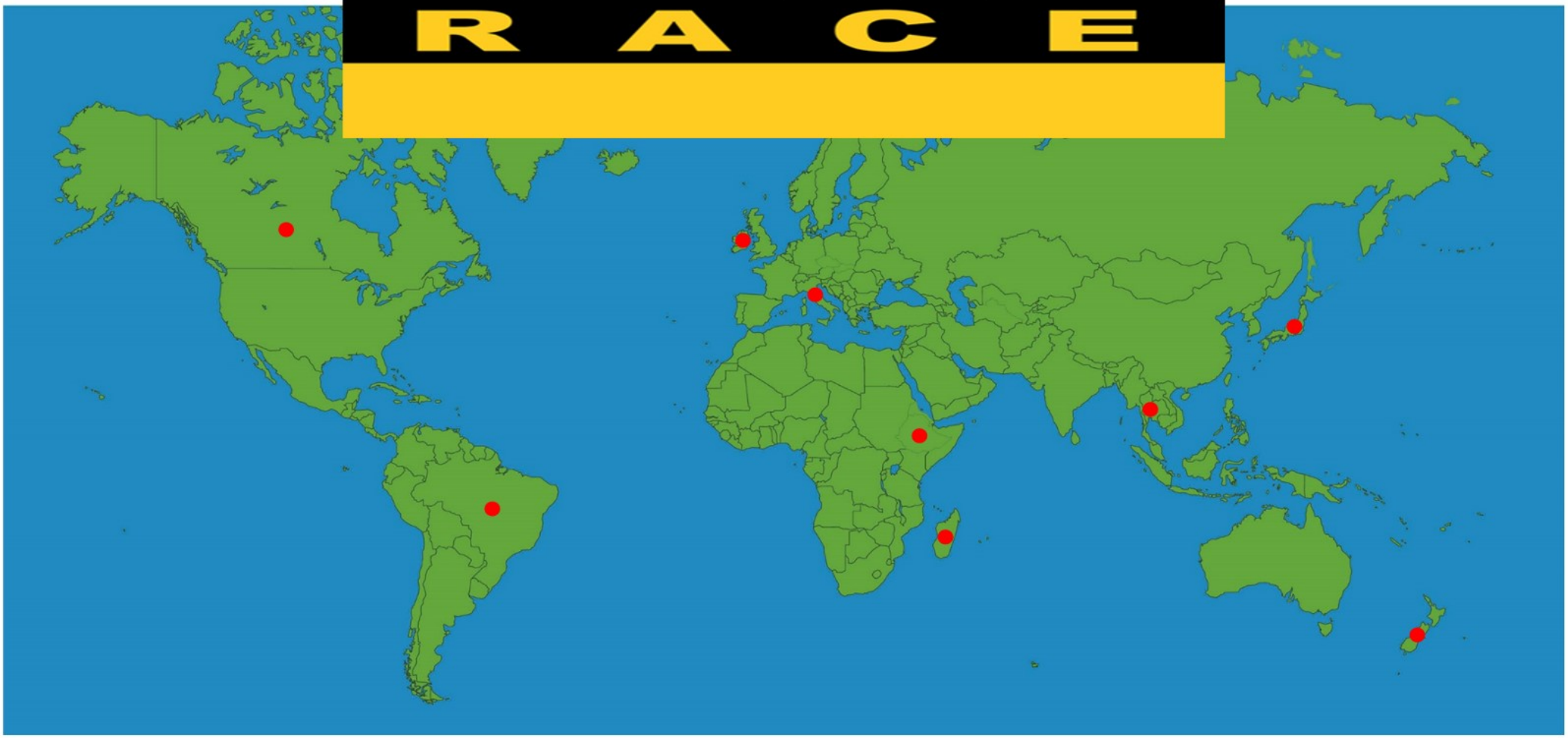
THE AMAZING RACE



1) Complete the first location card and check with a teacher to receive your first sticker. Place the sticker on the matching location.
2) Draw an action card from your envelope and follow its directions. You must complete this task before receiving your next location card from the teacher.
3) Repeat completing location cards from the teacher and then drawing an action card from your envelope.
4) The first team to travel around the world (or the team who travels the farthest) wins!

THE AMAZING RACE	THE AMAZING RACE	THE AMAZING RACE
CANADA	**IRELAND**	**ITALY**
CLUE #1: EXPAND YOUR MIND, EXPAND THESE POWERS **EXPAND THE FOLLOWING POWERS:** 1) $5^3 =$ _____ 2) $9^6 =$ _____ 3) $x^5 =$ _____ 4) $2^4 \cdot 5^2 =$ _____ 5) $a^3 \cdot b^2 =$ _____ 6) $(-3)^4 =$ _____ 7) $-6^5 =$ _____ 8) $x \cdot y^6 =$ _____	**CLUE #2: WHAT'S MISSING?** **FILL IN THE BLANKS:** 1) $5^{\square} = 25$ 2) $3^{\square} = 243$ 3) $7^{\square} = 823,543$ 4) $10^{\square} = 1,000,000,000$ 5) $6^{\square} = 1/36$ 6) $4^{\square} = 1$	**CLUE #3: MULTIPLICATION MANIA** **SIMPLIFY THESE PROBLEMS WITH POSITIVE EXPONENTS:** 1) $10^3 \cdot 10^4 =$ _____ 2) $10 \cdot 10^5 =$ _____ 3) $10^{-4} \cdot 10^9 =$ _____ 4) $10^4 \cdot 10^{-9} =$ _____ 5) $x^4 \cdot x^7 =$ _____ 6) $x^{12} \cdot x^{-5} =$ _____ 7) $8^3 \cdot 8^{-2} =$ _____ 8) $3^{-8} \cdot 3^{-2} =$ _____

THE AMAZING RACE

ETHIOPIA

CLUE #4: DIVISION DIVERSION

ORDER THE FOLLOWING FROM LEAST (1) TO GREATEST (5):

1) $\frac{10^6}{10^4}$ ☐

2) $\frac{10^{-5}}{10^3}$ ☐

3) $\frac{10^{12}}{10^3}$ ☐

4) $\frac{10^0}{10^3}$ ☐

5) $\frac{10^6}{10^{-5}}$ ☐

THE AMAZING RACE

MADAGASCAR

CLUE #5: POWERFUL POWERS

SIMPLIFY THESE PROBLEMS WITH POSITIVE EXPONENTS:

1) $(10^4)^2 =$ _____

2) $(10^7)^3 =$ _____

3) $(10^5)^{-2} =$ _____

4) $(x^3)^4 =$ _____

5) $(x^{-4})^{-5} =$ _____

6) $(2^8)^2 =$ _____

7) $(-3^2)^3 =$ _____

8) $-(5^4)^2 =$ _____

THE AMAZING RACE

THAILAND

CLUE #6: NEGATIVE NATURE

MATCH THE NEGATIVE POWER TO ITS SIMPLIFIED POSITIVE POWER.

1) 10^{-5}

2) 10^{-3}

3) $(10^4)^{-2}$

4) $10^{-3} \cdot 10^{-9}$

5) $\frac{10^6}{10^{12}}$

6) $10^0 \cdot 10^{-4}$

- $\frac{1}{10^{12}}$
- $\frac{1}{10^6}$
- $\frac{1}{10^4}$
- $\frac{1}{10^5}$
- $\frac{1}{10^3}$
- $\frac{1}{10^8}$

THE AMAZING RACE

JAPAN

CLUE #7: ZERO ZANINESS

SIMPLIFY THESE POWERS OF ZERO WITH POSITIVE EXPONENTS:

1) 10^0 = _____

2) $10^0 \cdot 10^6$ = _____

3) $10^{-3} \cdot 10^0$ = _____

4) $(10^5)^0$ = _____

5) $(10^0)^2$ = _____

6) $(10^5)^2 \cdot 10^0$ = _____

7) $\frac{10^0}{10^3}$ = _____

8) $\frac{10^7}{10^0}$ = _____

THE AMAZING RACE

NEW ZEALAND

CLUE #8: MIXED BAG

SIMPLIFY THESE POWERS WITH POSITIVE EXPONENTS:

1) $\frac{10^3 \cdot 10^6}{10^4}$ = _____

2) $(10^6)^4 \cdot 10^{-15}$ = _____

3) $\frac{10^5}{10^2 \cdot 10^8}$ = _____

4) $\frac{(10^8)^3 \cdot (10^6)^2}{(10^4)^3}$ = _____

5) $(10^0)^5 \cdot 10^9 \cdot (10^1)^0$ = _____

THE AMAZING RACE

BRAZIL

CLUE #9: SUMMARY SET-UP

MATCH THE RULE TO THE PROPERTY:

MULTIPLICATION

POWER

DIVISION

ZERO

NEGATIVE

- $x^0 = 1$
- $(x^a)^b = x^{a \cdot b}$
- $x^{-a} = \frac{1}{x^a}$
- $\frac{x^a}{x^b} = x^{a-b}$
- $x^a \cdot x^b = x^{a+b}$

ROAD BLOCK

A ROAD BLOCK IS A TASK ONLY ONE PERSON CAN PERFORM: WHO'S READY TO MULTIPLY?

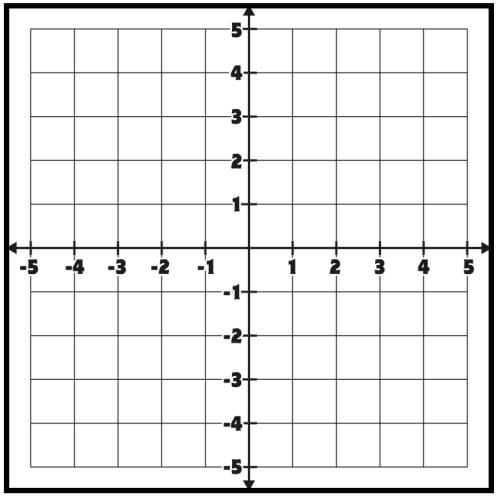
SOLVE THE FOLLOWING WITHOUT A CALCULATOR:

$$\begin{array}{r} 345 \\ \times \quad 14 \\ \hline \end{array}$$

ROAD BLOCK

A ROAD BLOCK IS A TASK ONLY ONE PERSON CAN PERFORM (A DIFFERENT GROUP MEMBER THAN BEFORE): WHO'S READY TO GRAPH?

GRAPH THE FOLLOWING 3 POINTS ON THE GRID BELOW:
(3,-4), (-2,5) and (0,-3)



ROAD BLOCK

A ROAD BLOCK IS A TASK ONLY ONE PERSON CAN PERFORM (THE LAST PERSON IN THE GROUP): WHO'S READY TO SIMPLIFY?

SIMPLIFY THE FOLLOWING FRACTIONS:

25/100 = _____

8/40 = _____

15/90 = _____

DETOUR

CRAB WALK OR KANGAROO HOP

THE ENTIRE TEAM MUST COMPLETE THE SAME CHOICE.

ONE AT A TIME, EACH MEMBER OF YOUR TEAM MUST GO INTO THE HALLWAY AND DO ONE OF THE FOLLOWING FROM THE CLASSROOM DOOR TO THE POD DOOR AND BACK.

IF THEY STOP OR FALL DOWN, THEY MUST START OVER AT THE CLASSROOM DOOR.

DETOUR

SIT UP OR PUSH UP

THE ENTIRE TEAM MUST COMPLETE THE SAME CHOICE.

ALL GROUP MEMBERS MUST COMPLETE 20 FULL SIT UPS OR 10 FULL PUSH UPS.

DETOUR

CHANCE OR DANCE

THE ENTIRE TEAM MUST COMPLETE THE SAME CHOICE.

CHANCE - EACH PERSON MUST ROLL THREE DICE UNTIL THEY LAND ON THE SAME NUMBER.

DANCE - EACH PERSON MUST DANCE NON-STOP FOR 1 MINUTE.

SPEED BUMP	SPEED BUMP	SPEED BUMP
		
AS A TEAM, YOU MUST WRITE 10 COMPLIMENTS FOR YOUR TEACHER ON YOUR WHITEBOARD BEFORE YOU CAN CONTINUE THE RACE. PLEASE USE FULL SENTENCES, WITH CORRECT CAPITALIZATION AND PUNCTUATION.	AS A TEAM, YOU MUST NAME EVERY STUDENT IN THE CLASS OUT LOUD BEFORE YOU CAN CONTINUE WITH THE RACE. IF YOU DON'T KNOW SOMEONE'S NAME YOU MAY ASK THEM POLITELY, "EXCUSE ME, WHAT IS YOUR NAME?".	ALL MEMBERS OF YOUR TEAM MUST SIT IN A CHAIR IN SILENCE FOR 3 MINUTES STRAIGHT. IF ANYONE ON YOUR TEAM MAKES ANY NOISE FOR ANY REASON, THE 3 MINUTES RESET.