Incoming 5ᵗʰ Grade Summer Math

The purpose of the summer review is to keep your math skills sharp and to not lose all the progress you made during 4ᵗʰ grade. After all: "If you don't use it, you lose it!"

Part 1: Timed tests

Did you know that knowing your multiplication and division facts is one of the best ways to get better at math? Here are 8 weeks of timed math facts to keep your brain fresh.

- Monday-Thursday* Have an adult time you for exactly 1 minute.
- Complete as many of the problems as you can.
- Record your score out of 30 on the answer sheet.
- *Friday timed tests are optional. Set a timer for 2 minutes to do 60 problems.

Part 2: Math in Focus review problems

There are 52 questions in total.

- Mid-Year Test: 27 questions
- End-of-Year Test: 25 questions
- Multiple-choice, short-answer, and bonus questions (Yes, please do the bonus!)
- Please show all work on a separate sheet of paper to receive full credit.
- Record your answers on the answer sheets provided.

Part 3: OPTIONAL fun games and activities

Math is fun! Try these optional games with your friends or family over the summer for another way to practice your skills! Check out more cool activities here:

- Youcubed.org
- Bit.ly/mathwalks2020

Have a great summer, and we can't wait to see you in the fall!

Sincerely,

The 5ᵗʰ Grade Teachers

Mid-Year Test Answers

Remember to show your work in your packet or on a sheet of paper.

1.	15. fill in the table on your packet
2.	16a. 16b.
3.	17.
4.	18a. 18b.
5.	19.
6.	20.
7.	21.
8.	22.
9.	23. fill in the table on your packet
10.	24a. 24b.
11.	25.
12.	Bonus (Yes, please do these!)
13.	1.
14.	2.

End-of-Year Test Answers

Remember to show your work in your packet or on a sheet of paper.

1.	13a. 13b.
2.	14.
3.	15.
4.	16.
5.	17-20 complete in your packet
6.	21.
7.	22.
8.	23.
9.	Bonus (Yes, please do these!)
10.	1.
11.	2.
12.	

Timed Test Scores

Have an adult time you for 1 minute every day. Friday tests are optional.

Week 1 Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60	**Week 2** Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60	**Week 3** Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60
Week 4 Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60	**Week 5** Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60	**Week 6** Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60
Week 7 Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60	**Week 8** Monday: _____/30 Tuesday: _____/30 Wednesday: _____/30 Thursday: _____/30 Friday: _____/60	Great work!

Name: _____

Date: _____

MONDAY

5 × 4	4 × 8	4 × 6	4 × 4	3 × 2	3 × 4	2 × 6	4 × 7	2 × 9	4 × 3
6 × 3	6 × 4	3 × 5	4 × 3	6 × 5	1 × 4	7 × 3	4 × 4	7 × 4	4 × 5
8 × 4	2 × 4	3 × 2	1 × 3	3 × 3	2 × 5	8 × 3	9 × 3	9 × 4	5 × 3

TUESDAY

4 × 9	4 × 8	5 × 8	3 × 2	2 × 9	4 × 2	2 × 4	3 × 5	4 × 7	3 × 4
3 × 4	8 × 3	5 × 4	5 × 3	9 × 4	8 × 4	4 × 5	3 × 3	2 × 5	7 × 4
8 × 5	2 × 3	7 × 3	6 × 4	9 × 3	6 × 5	4 × 3	7 × 2	8 × 2	6 × 3

WEDNESDAY

2 × 8	3 × 4	5 × 8	4 × 4	3 × 8	5 × 9	3 × 5	5 × 2	4 × 8	3 × 3
7 × 4	2 × 4	5 × 3	1 × 2	6 × 3	1 × 4	3 × 3	2 × 3	9 × 2	8 × 3
7 × 5	7 × 3	3 × 4	6 × 4	6 × 5	2 × 5	5 × 4	8 × 2	3 × 5	4 × 2

THURSDAY

3 × 6	3 × 5	5 × 3	4 × 7	3 × 7	5 × 5	4 × 3	3 × 3	2 × 9	3 × 4
4 × 5	2 × 4	4 × 2	7 × 3	8 × 3	6 × 3	7 × 4	5 × 5	5 × 4	9 × 2
4 × 3	8 × 2	2 × 3	8 × 4	6 × 4	5 × 3	4 × 4	3 × 4	3 × 3	2 × 5

FRIDAY

4 × 5	4 × 8	4 × 7	2 × 4	3 × 5	4 × 6	5 × 3	3 × 9	3 × 6	3 × 4
3 × 3	4 × 9	5 × 5	4 × 2	5 × 4	2 × 2	2 × 8	2 × 5	3 × 7	3 × 8
4 × 4	5 × 8	4 × 3	5 × 7	2 × 6	5 × 9	5 × 6	2 × 3	3 × 2	2 × 7
9 × 4	2 × 4	8 × 5	6 × 4	5 × 4	5 × 3	7 × 4	3 × 3	4 × 5	5 × 5
3 × 2	4 × 4	8 × 4	4 × 3	9 × 5	3 × 4	7 × 2	4 × 2	8 × 2	8 × 3
6 × 3	7 × 3	9 × 3	2 × 3	6 × 2	3 × 5	2 × 2	7 × 5	9 × 2	5 × 2

Mad Minutes - 5th Grade - Week 2
Multiplication Facts - 2's to 7's

Name: _____

Date: _____

MONDAY

5 × 4	7 × 5	2 × 5	4 × 7	4 × 3	4 × 6	5 × 3	6 × 2	7 × 6	4 × 8
6 × 3	7 × 4	4 × 6	2 × 3	5 × 2	8 × 3	4 × 5	6 × 5	3 × 2	2 × 7
4 × 3	5 × 4	2 × 4	8 × 5	9 × 6	5 × 5	4 × 2	8 × 4	6 × 2	2 × 6

TUESDAY

4 × 2	4 × 5	3 × 2	4 × 8	3 × 3	7 × 2	3 × 6	2 × 3	7 × 6	3 × 8
5 × 4	3 × 2	5 × 5	6 × 3	7 × 3	4 × 4	1 × 5	3 × 7	8 × 3	8 × 7
5 × 2	9 × 6	5 × 3	2 × 4	4 × 7	4 × 3	6 × 5	3 × 3	2 × 6	3 × 4

WEDNESDAY

5 × 3	4 × 6	4 × 4	6 × 2	2 × 5	6 × 8	4 × 7	4 × 9	4 × 8	5 × 5
6 × 7	1 × 2	2 × 7	2 × 3	8 × 3	6 × 4	8 × 5	7 × 3	3 × 6	7 × 6
4 × 4	5 × 3	5 × 5	6 × 6	6 × 5	8 × 4	6 × 3	2 × 5	3 × 3	8 × 6

THURSDAY

2 × 7	5 × 6	4 × 3	5 × 7	7 × 5	3 × 5	2 × 6	6 × 8	5 × 9	5 × 5
5 × 2	2 × 4	8 × 6	7 × 6	4 × 3	1 × 2	7 × 3	5 × 5	6 × 5	1 × 6
5 × 3	7 × 4	3 × 4	2 × 6	6 × 6	2 × 2	6 × 4	6 × 7	3 × 5	4 × 6

FRIDAY

3 × 4	7 × 2	4 × 7	5 × 5	3 × 6	5 × 3	6 × 7	4 × 9	7 × 5	5 × 4
5 × 2	4 × 6	3 × 3	5 × 7	3 × 5	3 × 2	5 × 8	3 × 7	2 × 6	6 × 4
6 × 5	6 × 3	4 × 5	4 × 8	6 × 6	6 × 9	6 × 2	4 × 2	2 × 9	6 × 8
7 × 3	7 × 7	7 × 2	2 × 2	8 × 6	7 × 6	7 × 4	5 × 4	2 × 3	6 × 3
9 × 3	8 × 4	6 × 5	4 × 5	3 × 4	6 × 6	6 × 4	8 × 2	4 × 4	3 × 7
5 × 3	5 × 5	6 × 2	4 × 3	7 × 5	3 × 6	4 × 6	9 × 5	9 × 7	3 × 3

Mad Minutes - 5th Grade - Week 3
Multiplication Facts 2's to 9's

Name: _____

Date: _____

MONDAY

8 × 6	8 × 5	9 × 3	8 × 7	8 × 8	8 × 2	9 × 5	9 × 4	8 × 4	9 × 8
7 × 9	7 × 8	8 × 9	3 × 9	6 × 8	2 × 9	5 × 9	5 × 8	1 × 8	9 × 8
3 × 8	4 × 8	2 × 8	8 × 8	6 × 9	9 × 9	4 × 9	1 × 9	1 × 9	3 × 9

TUESDAY

8 × 8	8 × 4	9 × 7	9 × 5	8 × 7	8 × 2	9 × 4	8 × 9	8 × 5	8 × 6
8 × 9	6 × 8	6 × 9	9 × 8	5 × 9	3 × 8	4 × 9	3 × 9	8 × 8	1 × 8
7 × 9	4 × 8	2 × 9	7 × 8	5 × 8	2 × 8	1 × 9	9 × 9	5 × 9	5 × 8

WEDNESDAY

8 × 4	8 × 5	9 × 6	8 × 2	9 × 9	9 × 5	8 × 3	9 × 3	8 × 8	9 × 8
5 × 8	4 × 8	2 × 9	2 × 8	9 × 9	8 × 9	3 × 9	3 × 8	1 × 8	8 × 8
1 × 9	7 × 9	4 × 9	9 × 8	5 × 9	6 × 8	7 × 8	6 × 9	4 × 8	2 × 8

THURSDAY

4 × 2	2 × 3	5 × 3	7 × 2	8 × 7	8 × 2	7 × 6	2 × 6	6 × 2	8 × 4
5 × 8	1 × 6	4 × 9	5 × 3	3 × 2	6 × 3	8 × 8	4 × 2	5 × 9	2 × 5
7 × 8	8 × 5	4 × 4	5 × 7	8 × 7	7 × 5	9 × 6	6 × 8	1 × 2	7 × 7

FRIDAY

2 × 4	6 × 3	4 × 3	5 × 3	3 × 9	2 × 2	6 × 5	4 × 4	8 × 6	4 × 9
3 × 2	1 × 3	4 × 2	5 × 1	3 × 7	4 × 7	8 × 1	9 × 5	2 × 7	6 × 6
4 × 1	6 × 8	5 × 5	8 × 2	8 × 7	6 × 1	9 × 2	2 × 8	3 × 4	3 × 5
5 × 8	3 × 4	4 × 5	4 × 4	3 × 3	5 × 4	9 × 4	8 × 5	7 × 8	2 × 3
4 × 8	7 × 3	7 × 6	6 × 5	2 × 8	3 × 6	6 × 6	8 × 7	2 × 4	6 × 4
1 × 5	8 × 2	4 × 3	5 × 5	1 × 3	5 × 2	2 × 7	6 × 8	2 × 2	2 × 5

Mad Minutes - 5th Grade - Week 4
Multiplication Facts 11's and 12's

Name: _____

Date: _____

MONDAY

12 × 7	12 × 8	12 × 1	11 × 11	12 × 12	11 × 8	11 × 6	11 × 9	12 × 9	11 × 4
5 × 12	1 × 11	1 × 12	3 × 11	11 × 11	5 × 11	11 × 12	6 × 12	9 × 12	2 × 12
7 × 12	10 × 11	9 × 11	4 × 12	12 × 12	4 × 11	10 × 12	3 × 12	2 × 11	8 × 12

TUESDAY

11 × 11	11 × 12	11 × 3	12 × 3	11 × 5	12 × 1	12 × 7	12 × 10	12 × 9	11 × 10
7 × 11	9 × 11	6 × 11	4 × 12	11 × 11	6 × 12	4 × 11	10 × 11	7 × 12	5 × 12
12 × 11	11 × 12	3 × 11	2 × 11	2 × 12	8 × 11	3 × 12	9 × 12	5 × 11	8 × 12

WEDNESDAY

12 × 5	11 × 4	12 × 11	11 × 11	12 × 6	12 × 12	11 × 12	12 × 2	12 × 3	11 × 10
11 × 11	5 × 11	12 × 12	9 × 11	8 × 12	6 × 12	3 × 11	4 × 12	7 × 11	8 × 11
3 × 12	7 × 12	4 × 11	2 × 11	2 × 12	6 × 11	10 × 12	1 × 11	11 × 12	1 × 12

THURSDAY

11	12	12	12	11	11	12	12	11	12
× 10	× 8	× 12	× 11	× 6	× 11	× 7	× 5	× 5	× 4

7	4	10	5	2	6	1	3	11	5
× 11	× 11	× 11	× 12	× 11	× 12	× 11	× 12	× 12	× 11

3	4	6	12	2	9	11	10	8	8
× 11	× 12	× 11	× 11	× 12	× 11	× 11	× 12	× 12	× 11

FRIDAY

12	11	12	11	12	12	12	12	12	11
× 9	× 11	× 7	× 3	× 12	× 2	× 3	× 10	× 11	× 10

12	12	11	11	12	11	12	11	11	11
× 8	× 4	× 12	× 4	× 1	× 7	× 5	× 8	× 6	× 5

11	11	12	11	12	11	11	12	12	12
× 9	× 2	× 6	× 1	× 11	× 10	× 8	× 6	× 8	× 2

10	9	5	10	4	5	6	8	11	7
× 12	× 11	× 11	× 11	× 12	× 12	× 11	× 12	× 12	× 11

12	9	11	1	3	6	8	3	2	12
× 11	× 12	× 11	× 12	× 11	× 12	× 11	× 12	× 12	× 12

4	1	2	7	9	12	3	4	5	12
× 11	× 11	× 11	× 12	× 11	× 12	× 12	× 12	× 11	× 11

MONDAY

7 × 12	7 × 11	6 × 2	5 × 2	2 × 11	7 × 10	10 × 4	7 × 5	10 × 8	4 × 11
8 × 12	2 × 11	7 × 6	2 × 8	11 × 12	2 × 10	3 × 11	9 × 4	11 × 4	5 × 12
9 × 7	10 × 11	6 × 10	7 × 12	8 × 11	9 × 8	1 × 11	7 × 7	11 × 6	10 × 2

TUESDAY

2 × 7	6 × 7	2 × 6	11 × 5	5 × 4	7 × 10	10 × 12	2 × 12	4 × 8	10 × 11
11 × 5	2 × 6	7 × 10	5 × 6	10 × 8	5 × 4	8 × 4	12 × 4	10 × 5	12 × 12
10 × 6	2 × 8	11 × 6	5 × 11	11 × 12	6 × 4	12 × 10	3 × 8	3 × 12	3 × 10

WEDNESDAY

11 × 11	11 × 12	9 × 3	2 × 12	9 × 10	2 × 9	12 × 7	4 × 5	10 × 10	10 × 4
7 × 12	7 × 6	8 × 4	12 × 10	1 × 10	3 × 12	10 × 5	10 × 3	5 × 11	3 × 8
9 × 10	11 × 12	12 × 2	5 × 9	8 × 6	9 × 3	6 × 10	10 × 12	8 × 7	2 × 9

THURSDAY

6 × 7	11 × 4	3 × 4	8 × 6	7 × 2	8 × 11	5 × 11	9 × 9	1 × 8	3 × 9
5 × 9	12 × 7	11 × 10	11 × 5	10 × 11	6 × 4	8 × 5	5 × 11	8 × 10	9 × 10
6 × 12	5 × 2	3 × 5	11 × 11	6 × 10	6 × 11	4 × 4	9 × 8	2 × 4	7 × 5

FRIDAY

6 × 11	4 × 4	9 × 3	3 × 12	7 × 4	8 × 11	6 × 2	9 × 11	11 × 2	3 × 5
12 × 11	2 × 4	10 × 12	5 × 7	8 × 8	7 × 11	11 × 11	11 × 10	3 × 3	4 × 11
9 × 8	2 × 11	7 × 3	6 × 6	9 × 6	1 × 12	3 × 11	11 × 12	10 × 2	7 × 6
7 × 11	7 × 10	4 × 10	5 × 5	10 × 5	8 × 7	6 × 11	4 × 8	6 × 12	2 × 12
12 × 5	11 × 5	11 × 11	2 × 6	4 × 7	5 × 10	10 × 4	10 × 6	3 × 12	3 × 3
9 × 11	12 × 11	4 × 5	10 × 11	4 × 2	2 × 10	9 × 8	3 × 9	10 × 8	1 × 11

Mad Minutes - 5th Grade - Week 6
Division Facts 2's to 9's

Name: _____
Date: _____

MONDAY

4)16	5)15	8)64	6)36	5)40	9)63	3)18	3)21	9)81	6)24

6)42	3)24	3)27	7)42	5)35	6)18	7)35	4)36	7)28	2)8

8)40	4)32	2)16	6)12	7)49	2)4	8)16	4)20	8)72	2)12

TUESDAY

6)18	9)45	4)16	8)56	6)24	9)63	3)24	8)72	4)24	6)54

5)20	4)36	4)32	9)18	7)42	3)15	7)28	8)40	5)25	5)10

3)12	4)20	5)40	9)54	5)15	8)24	3)6	8)64	7)21	3)18

WEDNESDAY

8)72	6)42	6)48	2)10	9)54	9)63	3)12	7)28	8)24	5)20

9)27	6)54	3)24	4)28	6)30	4)16	2)16	7)42	3)18	2)8

9)72	2)14	8)48	3)15	8)40	4)24	7)21	5)15	5)40	4)32

THURSDAY

6)24	2)18	3)12	2)8	2)6	8)48	9)18	5)35	6)12	5)30
6)18	9)72	4)32	7)42	8)56	5)15	5)45	2)16	5)20	3)18
6)30	4)24	2)12	7)35	3)15	4)12	7)49	4)16	8)64	4)28

FRIDAY

5)25	6)42	7)63	6)24	3)6	7)56	7)42	2)18	4)20	6)36
5)30	9)72	6)48	8)32	3)21	3)9	2)6	6)12	7)21	3)15
9)63	5)10	5)20	7)49	2)8	2)10	5)15	8)48	5)40	4)32
4)8	7)28	4)28	7)35	8)72	8)64	2)14	7)14	6)18	8)24
8)40	4)24	6)30	3)24	8)16	9)36	8)56	2)4	3)18	4)36
5)35	4)12	5)45	3)12	9)45	2)12	4)16	9)18	6)54	3)27

Mad Minutes - 5th Grade - Week 7
Division Facts 2's to 9's

Name: _____

Date: _____

MONDAY

2)10	4)8	8)56	3)18	4)16	3)24	7)21	7)28	4)32	2)12
4)12	6)48	3)9	9)54	7)35	8)32	7)56	5)30	8)16	9)63
7)14	8)40	8)72	6)54	7)49	5)35	8)48	5)25	6)42	3)21

TUESDAY

8)32	9)27	8)40	6)54	5)15	4)16	6)24	5)20	9)36	7)35
9)54	8)24	3)15	7)21	6)42	9)45	6)48	5)30	3)9	5)35
9)63	7)28	2)10	3)24	8)56	5)40	4)28	4)20	7)42	5)10

WEDNESDAY

8)32	3)21	5)40	3)18	2)14	6)42	5)10	4)24	4)16	5)15
3)12	7)42	3)6	2)12	8)48	6)18	5)30	5)45	8)24	4)36
4)12	7)28	9)18	7)14	7)49	4)32	6)24	5)25	7)63	8)56

THURSDAY

8⟌72	3⟌15	9⟌36	4⟌32	5⟌35	8⟌40	5⟌40	8⟌64	6⟌18	2⟌14
7⟌14	3⟌6	4⟌28	8⟌48	7⟌42	4⟌24	9⟌81	3⟌27	3⟌21	9⟌45
7⟌56	8⟌32	6⟌42	6⟌54	8⟌56	7⟌49	8⟌16	3⟌18	2⟌10	8⟌24

FRIDAY

6⟌36	2⟌14	9⟌54	9⟌81	4⟌12	3⟌27	2⟌8	7⟌28	9⟌45	3⟌15
7⟌42	6⟌42	5⟌20	3⟌9	3⟌12	8⟌40	8⟌24	7⟌63	9⟌36	8⟌64
5⟌15	5⟌40	2⟌10	4⟌28	9⟌63	3⟌18	6⟌12	7⟌49	6⟌48	5⟌25
7⟌14	4⟌20	4⟌16	9⟌18	3⟌24	7⟌21	6⟌54	4⟌24	5⟌45	5⟌35
7⟌35	2⟌12	3⟌6	8⟌56	3⟌21	2⟌6	8⟌32	6⟌24	8⟌48	5⟌30
4⟌8	4⟌36	9⟌72	4⟌32	2⟌18	8⟌72	7⟌56	6⟌18	6⟌30	8⟌16

Mad Minutes - 5th Grade - Week 8
Division Facts 2's to 12's

Name: _____

Date: _____

MONDAY

| 10)‾40 | 9)‾81 | 8)‾72 | 12)‾36 | 8)‾80 | 8)‾96 | 4)‾28 | 7)‾28 | 3)‾18 | 5)‾15 |

| 4)‾20 | 4)‾32 | 11)‾55 | 9)‾27 | 9)‾108 | 9)‾54 | 10)‾20 | 7)‾49 | 2)‾24 | 9)‾72 |

| 6)‾18 | 10)‾80 | 9)‾63 | 6)‾36 | 10)‾70 | 11)‾88 | 12)‾48 | 2)‾8 | 10)‾50 | 3)‾33 |

TUESDAY

| 5)‾45 | 3)‾12 | 3)‾9 | 12)‾24 | 4)‾12 | 9)‾81 | 9)‾27 | 7)‾49 | 11)‾66 | 11)‾44 |

| 5)‾25 | 6)‾54 | 4)‾44 | 7)‾77 | 4)‾20 | 6)‾30 | 7)‾70 | 5)‾50 | 3)‾21 | 5)‾30 |

| 6)‾66 | 8)‾24 | 10)‾70 | 11)‾22 | 7)‾42 | 5)‾20 | 12)‾72 | 2)‾16 | 9)‾63 | 2)‾10 |

WEDNESDAY

| 3)‾12 | 4)‾28 | 10)‾120 | 8)‾88 | 11)‾88 | 11)‾99 | 7)‾49 | 9)‾99 | 5)‾30 | 5)‾55 |

| 11)‾77 | 12)‾60 | 5)‾45 | 5)‾50 | 3)‾15 | 4)‾32 | 10)‾20 | 7)‾63 | 10)‾70 | 8)‾24 |

| 5)‾25 | 4)‾12 | 6)‾54 | 4)‾48 | 6)‾48 | 7)‾21 | 7)‾70 | 8)‾32 | 8)‾96 | 4)‾36 |

THURSDAY

3)33	12)60	12)96	11)33	5)20	7)70	12)132	11)55	5)25	3)9
3)12	7)49	4)28	3)24	11)77	7)35	3)18	2)14	9)99	2)18
4)24	7)56	10)90	10)50	10)40	8)88	5)35	4)40	9)36	10)70

FRIDAY

11)66	8)48	5)35	11)110	10)40	12)96	10)60	5)40	9)36	7)77
11)33	4)16	10)80	4)44	4)28	8)40	9)99	2)10	5)50	3)9
7)56	9)27	2)16	3)21	9)90	4)20	8)72	5)10	9)63	8)24
12)36	6)18	8)88	10)50	2)8	4)40	8)80	6)48	10)110	4)48
11)77	3)30	12)120	4)24	11)44	9)45	10)70	9)108	7)70	3)24
6)42	6)66	9)81	3)36	3)15	10)30	7)21	6)36	9)18	7)42
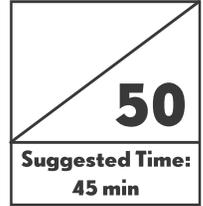
Mid-Year Test

Multiple Choice   (10 × 2 points = 20 points)

50

**Suggested Time:
45 min**

Fill in the circle next to the correct answer.

1. Estimate 745 + 359 by rounding to the nearest hundred.

Ⓐ 1,000   Ⓑ 1,100   Ⓒ 1,104   Ⓓ 1,200

2. Which pair of numbers are composite numbers?

Ⓐ 4 and 9   Ⓑ 13 and 23   Ⓒ 25 and 31   Ⓓ 53 and 81

3. What is the sum of all the common factors of 12 and 20?

Ⓐ 3   Ⓑ 7   Ⓒ 28   Ⓓ 70

4. Divide 9,519 by 9.

Ⓐ 157 R 6   Ⓑ 1,057   Ⓒ 1,057 R 6   Ⓓ 1,507 R 6

5. After giving out 17 cards to each of his 42 students, Mr. Tan had 23 cards left. How many cards did he have at first?

Ⓐ 737   Ⓑ 714   Ⓒ 691   Ⓓ 82

6.   The line plot shows the lengths of strips of paper a student has. The length is measured in meters.
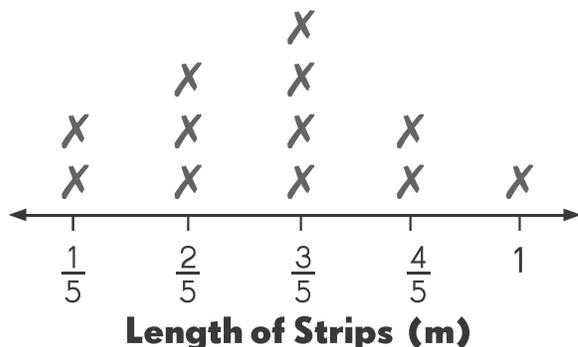
Length of Strips (m)

What is the total length of the strips which are $\frac{2}{5}$ m long?

(A) $\frac{6}{15}$ m   (B) $1\frac{1}{5}$ m   (C) 2 m   (D) 3 m

7.   John has 8 bottles. Each bottle contained $\frac{1}{5}$ oz of sand. How much sand was there altogether?

(A) $\frac{5}{8}$ oz   (B) $1\frac{3}{5}$ oz   (C) $7\frac{4}{5}$ oz   (D) $8\frac{1}{5}$ oz

8.   What is the missing mixed number in the number line?
Express your answer as an improper fraction in simplest form.
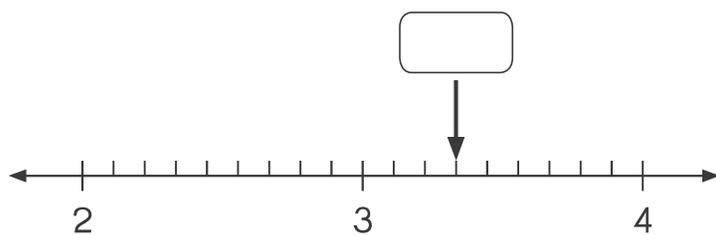
(A) $3\frac{3}{9}$ (B) $2\frac{8}{9}$ (C) $\frac{30}{9}$ (D) $\frac{10}{3}$

9. The string is _____ inches long.
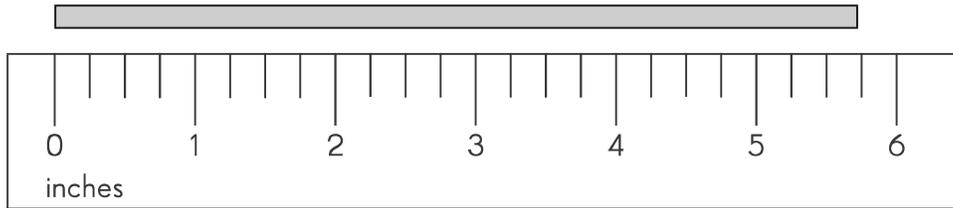
(A) 5   (B) $5\frac{1}{2}$ (C) $5\frac{3}{4}$ (D) 6

10. A cake was cut into 9 equal pieces. Linda, Cameron and Pete took 2 pieces each. What fraction of the cake was taken? Give your answer in the simplest form.

(A) $\frac{2}{9}$ (B) $\frac{6}{9}$ (C) $\frac{1}{3}$ (D) $\frac{2}{3}$

Short Answer   (10 × 2 points = 20 points)

Complete.

11. How many fourths are in $2\frac{1}{4}$?

_____

12. Write thirty-two thousand, two hundred sixteen in expanded form.

_____

13. The digit 9 in 95,032 is in the _____ place.

14. Estimate the quotient of 625 ÷ 9.

_____

15. The table shows the number of students in three classes. Complete the table.

Classes	Number of Students		Total Number
	Boys	Girls	
A	21	12	
B	16		30
C		18	36
Total			

Use the table to answer exercise 16.

16. **a.** How many more boys than girls are there? _____

b. What fraction of the students are girls? _____

17. There are 8 balls in a bag. There are 2 red balls and 4 blue balls. The remaining balls are green. Write the probability of drawing a green ball from the bag as a fraction.

_____

18. Look at the data in the array plot. It shows the time taken to fold paper hearts.

Time Taken to Fold Hearts (min)
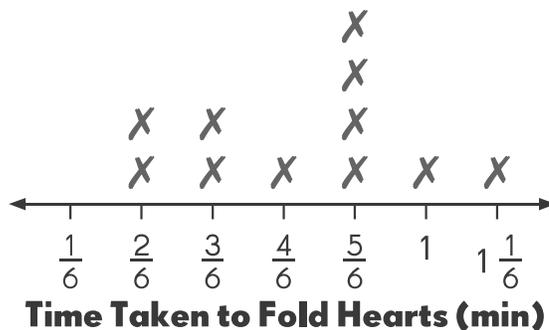
a. How many paper hearts were made between $\frac{3}{6}$ and 1 minute?

b. What is the difference between the fastest time and the slowest time?

Solve. Show your work.

19. Jamie has 2 pounds of butter. She used $\frac{3}{8}$ pound of butter to make

batter for pancakes. How much butter is left?
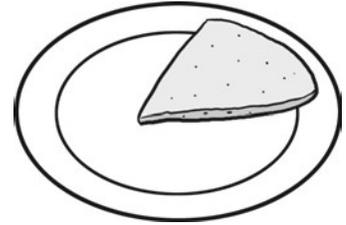
20. Mrs. Alexandra made 4,564 milliliters of orange juice. She mixed water and orange syrup to make the orange juice. The amount of water was 6 times the amount of syrup. How much more water than syrup was used?

Extended Response   (5 × 2 points = 10 points)

Solve. Show your work.

Carlos buys 150 red peppers and 80 fewer green peppers. He buys twice as many tomatoes. He used 3 tomatoes for a pizza.

21.   How many pizzas did Carlos make with the tomatoes?

22.   How many more tomatoes are left?

23.   The table shows the amount of money saved by two boys. Complete the table.

| Boys | 25¢ Coins | | 50¢ Coins | | Total |
	Number	Amount	Number	Amount	
Brandon	12			$4.50	
Sam		$1.50	7		

Use the table to answer exercise 24.

24.   **a.**   Who has more money?

   b.   How much more money does he have?

25.   How much money must one boy give to the other so that they both have the same amount of money? Give your answer as the number of 25¢ and 50¢ coins needed.

Name: _____   Date: _____

Bonus Questions

Solve. Show your work.

1. A basketball is dropped from a height and it rebounds. Each time the basketball rebounds it rebounds to a height that is $\frac{4}{5}$ its previous height. The ball is dropped from a height of 200 centimeters. What height will the ball bounce to on the third rebound?

2. If the length of a rectangle is shortened by 2 centimeters and the width is increased by 5 centimeters, it will be a square with an area of 36 square centimeters. What is the length and width of the original rectangle?

End-of-Year Test
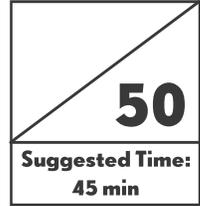
Multiple Choice   (10 × 2 points = 20 points)

<table>
<tr><td>50</td></tr>
<tr><td>Suggested Time:
45 min</td></tr>
</table>

Fill in the circle next to the correct answer.

1.   Which number is eighty thousand, sixty-seven?

(A) 86,700   (B) 80,670   (C) 86,007   (D) 80,067

2.   Find the answer to $\frac{759}{6}$.

(A) 12 R 39   (B) 120 R 9   (C) 126 R 3   (D) 126 R 5

The table shows the number of buns and muffins sold at two bakeries.

Bakery	Buns 80¢ each		Muffins $2 each	
	Number of buns sold	Amount of money collected	Number of muffins sold	Amount of money collected
A	18			$24
B	25		15	

3.   How much money did the two bakeries collect in all?

(A) $38.40   (B) $50   (C) $70   (D) $88.40

Some students threw darts at a target to score points at a fun fair. The line plot shows the distance away from the target each dart landed in inches.

Distance from Target (in.)
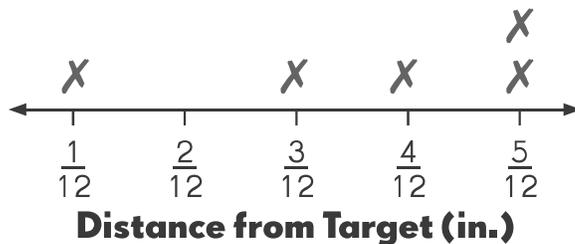
Each X represents 1 student.

4.   How far was the farthest dart away from the target?

(A) $\frac{1}{12}$ in.   (B) $\frac{2}{12}$ in.   (C) $\frac{4}{12}$ in.   (D) $\frac{5}{12}$ in.

5. $\frac{2}{9}$ of a number is 18. What is $\frac{1}{3}$ of the number?

(A) 6   (B) 9   (C) 27   (D) 81

6.   What is 3 tenths more than 5.21?

(A) 8.21   (B) 5.51   (C) 5.24   (D) 5.54

7.   A bench is 3.15 yards in length. It is 1.89 yards longer than an iron chain. What is their total length?

(A) 1.26 yd   (B) 4.41 yd   (C) 5.04 yd   (D) 6.32 yd

8.   Which pairs of line segments are perpendicular to each other?
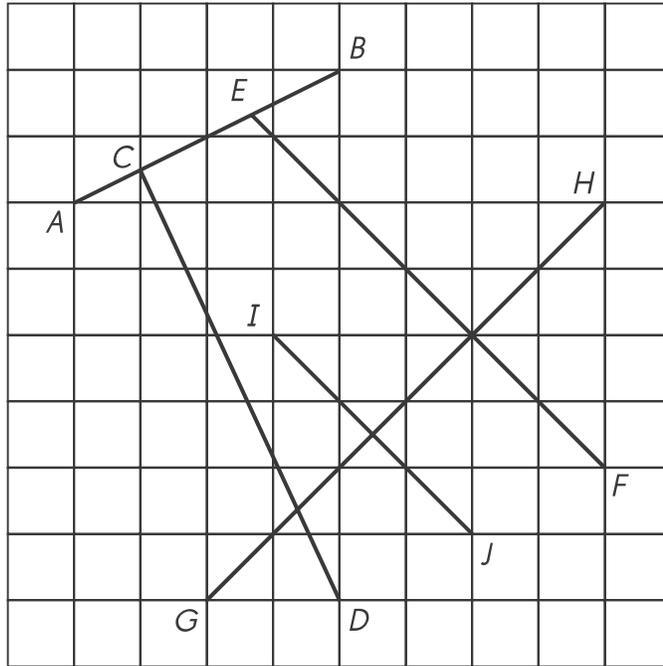
(A) $\overline{AB}$ and $\overline{CD}$

(B) $\overline{EF}$ and $\overline{IJ}$

(C) $\overline{GH}$ and $\overline{AB}$

(D) $\overline{CD}$ and $\overline{GH}$

9.   The length of a rectangle is 5 times its width. The sum of the length and width is 30 centimeters. What is the length of the rectangle?

(A) 5 cm   (B) 6 cm   (C) 25 cm   (D) 36 cm

10.   Which of these figures does not show line symmetry?

(A)

(B)

(C)

(D)

Short Answer   (10 × 2 points = 20 points)

11.   Complete the number pattern.

16,350   17,000   17,650   _____   _____

12.   Find the least common multiple of 6 and 8.

_____

The table shows the amount of money saved by Paterson in 5 weeks.

Week	Amount of money saved ($)
1	50
2	105
3	75
4	120
5	85

13.   **a.**   When did his savings increase the most?

From week _____ to week _____.

b.   How much did he save from week 3 to week 5?

$_____

14. A paper was divided into 12 equal parts. Sam used different colors to color some of these parts. He used blue to color 3 parts and red to color 6 parts. What fraction of the paper was not colored? Give your answer in the simplest form.

15. Terence has 64 stamps. Of his stamps, 12 are from Europe and $\frac{1}{4}$ are from Africa. The rest are from Asia. What fraction of his stamps are from Asia? Give your answer in the simplest form.

_____

16. Write 6.85 as an improper fraction in its simplest form.

_____

17. Use a protractor to draw an angle 12° larger than the given angle. Label your angle *STU*.
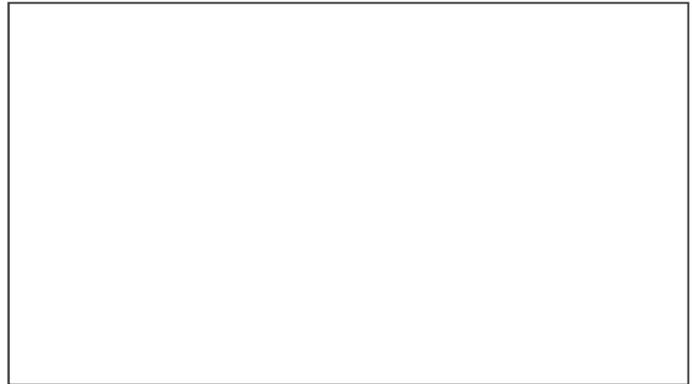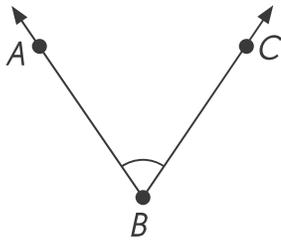
18. Use a drawing triangle or a protractor and a straightedge to draw a line segment perpendicular to $\overline{AB}$ and label it $\overline{XY}$. Then draw a line segment parallel to $\overline{XY}$ and label it $\overline{CD}$.

• B

• A
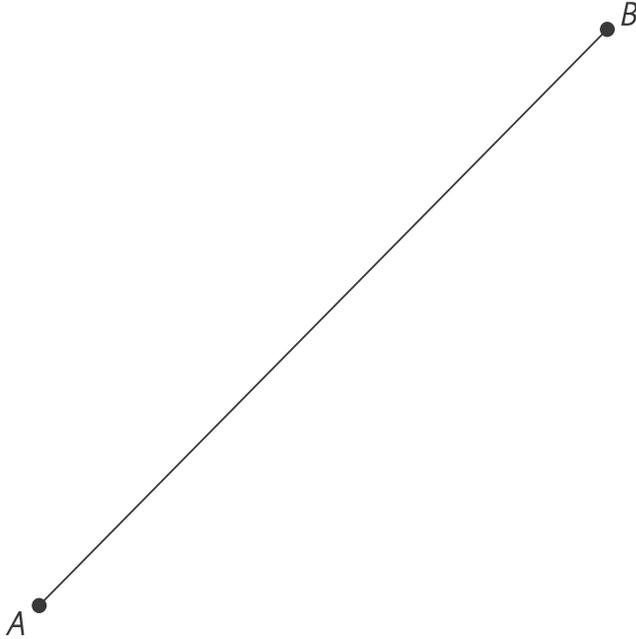
19. Complete the figure to make it symmetric about the line AB.

B

A
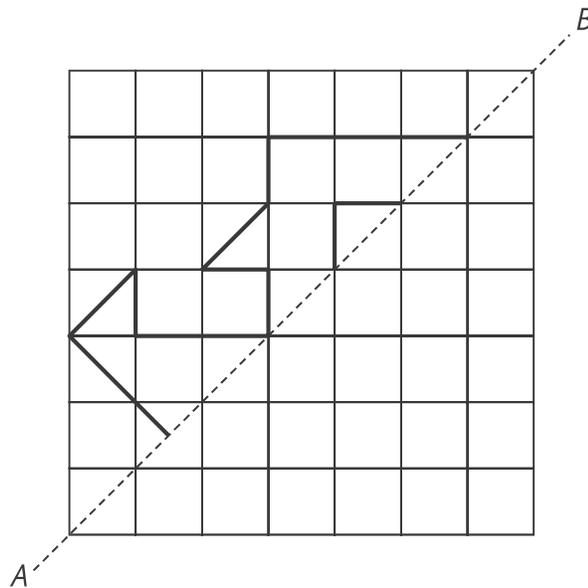
20. Add four more of the repeated shape to the tessellation.
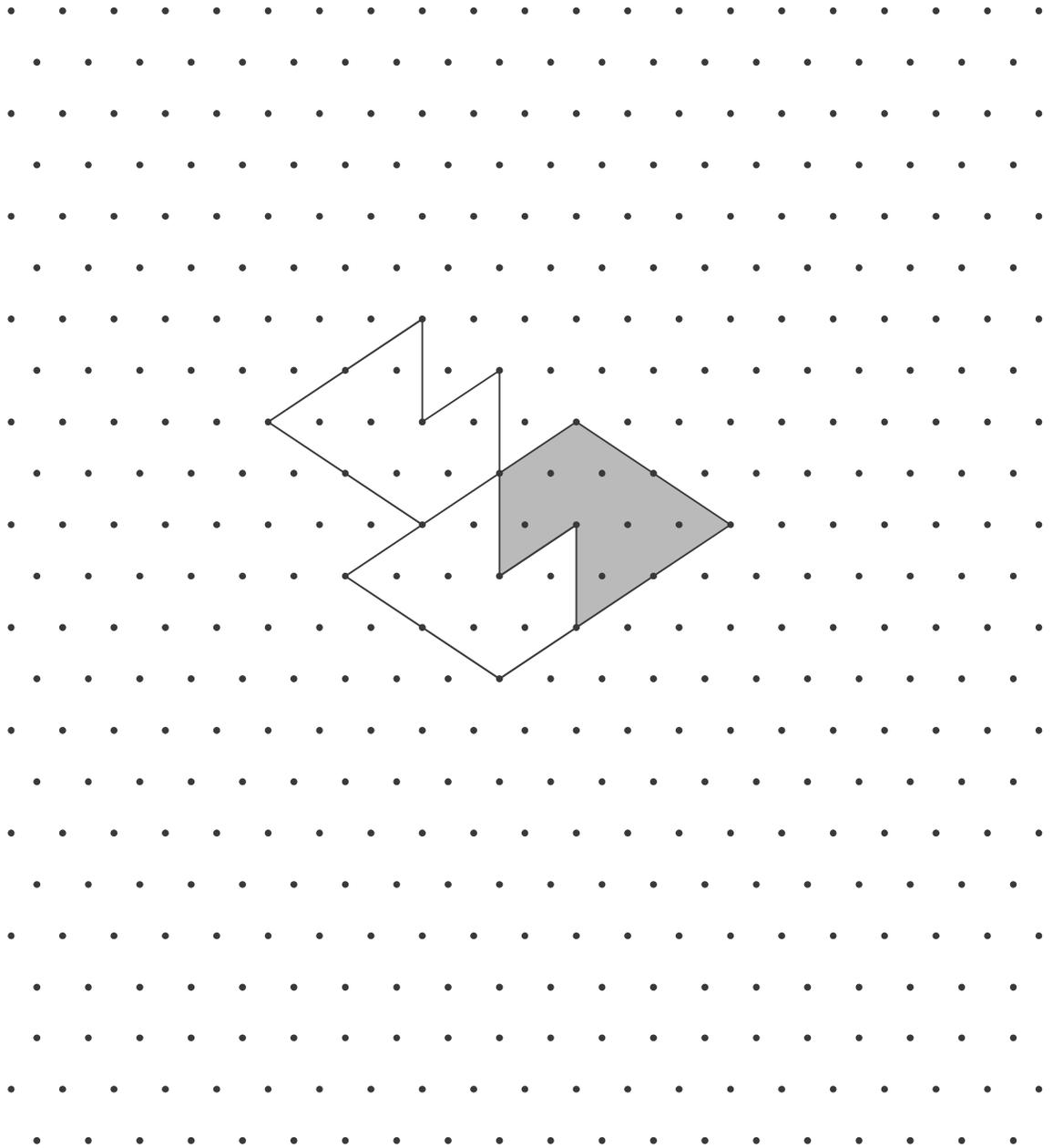
Extended Response

(Exercise 21 and 22: 2 × 3 points = 6 points;
Exercise 23: 4 points)

Solve. Show your work.

21. Ms. Kelly saved $3,640 in January. Her savings in January is $\frac{1}{3}$ of her monthly salary. In February, she saved a certain amount of her monthly salary and spent $7,184 more than the amount of money she saved in that month. How much did she save in February?

January

Savings [   ]

Salary [| |]

February

$7,184

Saved [   ]

Spent [   ]   } $3,640 × 3
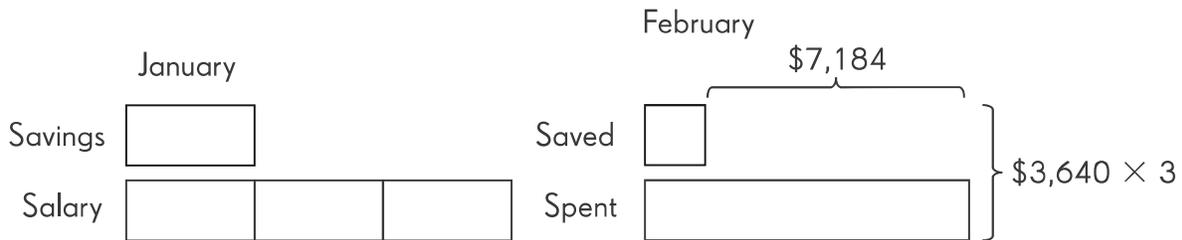
22. At a construction site, 6 workers carried an average of 15 kilograms of building materials. Another 3 workers joined them and the average amount they carried became 18 kilograms. How much did each of the 3 new workers carry if each new worker carried the same amount?

23. A painting is hung on a wall as shown in the diagram below. The painting measures 6 feet by 2 feet. What is the area of the wall not covered by the painting?
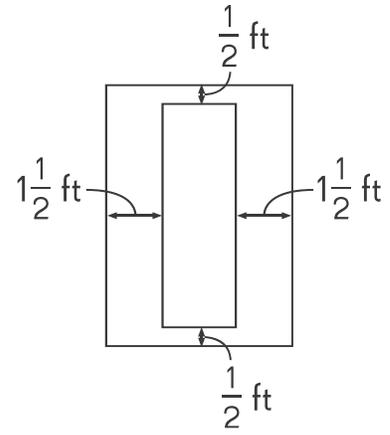
Bonus Questions

Solve.

1.   A square is made with 16 toothpicks. Each toothpick is 3 centimeters long.
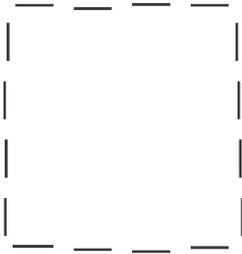
The toothpicks were rearranged to enclose an area of 135 square centimeters. Draw the figure formed by the toothpicks in the space below.

2.   Mary wants to glue pebbles around her rectangular pot. The pebbles need to be 3 centimeters apart. How many pebbles does Mary need?
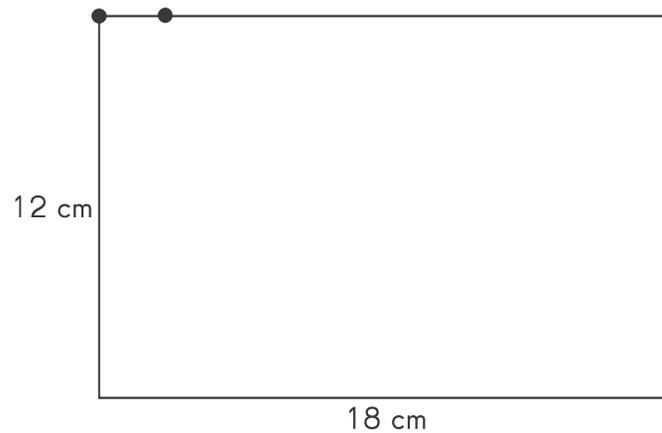
Surf About Decimal Game

a game for 2 players   Need: Counters, Dice

Each player chooses a mini board for the game and places a counter on the Start. Place 13 counters beside the game board. Each player rolls a dice and moves forward that many spaces. Compare the numbers that the players land on and the player with the largest number takes a counter. Continue moving around the board and comparing numbers. When all 13 counters are gone, the winner is the player with the most counters.

Start →	1.3	0.9	3.27	9.13	7.02	0.19
7.29						3.9
3.19						0.39
0.21						7.12
2.73	3.19	0.7	2.7	0.39	0.72	9.03

Start →	7.2	0.27	9.39	3.91	0.27	3.09
0.09						0.72
9.3						0.3
7.21						9.31
3.91	1.93	0.93	0.2	2.07	0.13	2.37

Soaker Fun

a game for 2 players   **Need: Counters, Dice**

Each player chooses a different START space for the game and puts a counter on it. Both players roll the dice and move forward that many spaces. The players then say the value of the underlined digit in the number on their space. Compare the value of the digits and the player with the highest value moves forward 2 spaces. Repeat and continue moving around the board and comparing values of the underlined digits. The winner is the player who is first to catch up to the other player or overtake the other player on the board.

Start →
345,209

6<u>3</u>0,813

427,05<u>3</u>

50<u>8</u>,219

<u>8</u>54,013

632,1<u>9</u>6
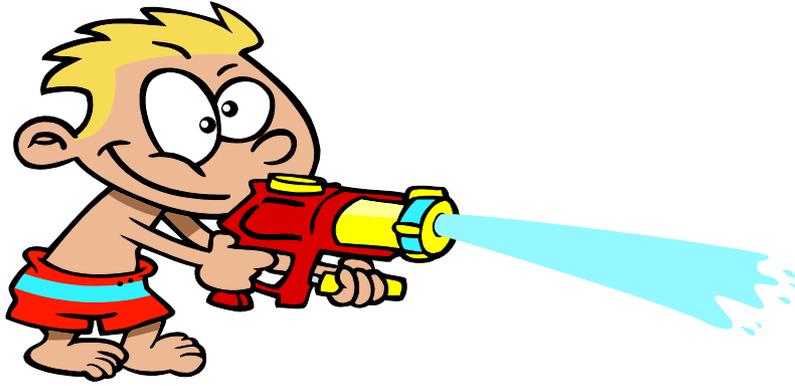
208,<u>8</u>03

980,<u>3</u>20

1<u>1</u>9,380

2<u>7</u>1,493

74<u>5</u>,007

409,<u>9</u>95

970,0<u>2</u>1

<u>1</u>18,907

Start ←
7<u>6</u>0,216

814,00<u>1</u>

32<u>7</u>,513

565,82<u>6</u>

Catch a Crab - Find a Multiple

a game for 2-4 players   **Need: counters, 2 dice**

Players take turns to roll the 2 dice and then add these numbers together. They then cover any number on the board that is a multiple of this number, e.g. if you roll 6 and 3, this adds to 9 so you can cover 18, 27, 36, 45 or 54. Play continues until one of the crabs is surrounded with a counter on each of the spaces around it. The player who places the last counter to 'catch' a crab is the winner.

14   15   27   49

56   48   40   50   30

22   36   32   42   16

18   14   33   35

56   54   25   22   36

25   32   16   54   50

20   45   15   30

44   28   49   27   20

35   33   55   28   40

45   18   24   42

Summer Treats
Find a Factor

a game for 2-4 players   **Need: counters, 2 dice**

Players take turns to roll the 2 dice and then add these numbers together. They then read the key and follow the instruction, e.g. If you roll 6 and 3, this adds to 9 so you would cover a factor of 36. Play continues until one of the summer treats is surrounded with a counter on each of the spaces around it. The player who places the last counter to surround a treat is the winner.

Key
Roll 2 – Cover a factor of 14.
Roll 3 – Cover a factor of 16.
Roll 4 – Cover a factor of 18.
Roll 5 – Cover a factor of 21.
Roll 6 – Cover a factor of 25.
Roll 7 – Cover a factor of 28.
Roll 8 – Cover a factor of 35.
Roll 9 – Cover a factor of 36.
Roll 10 – Cover a factor of 49.
Roll 11 – Cover a factor of 50.
Roll 12 – Cover a factor of 55.
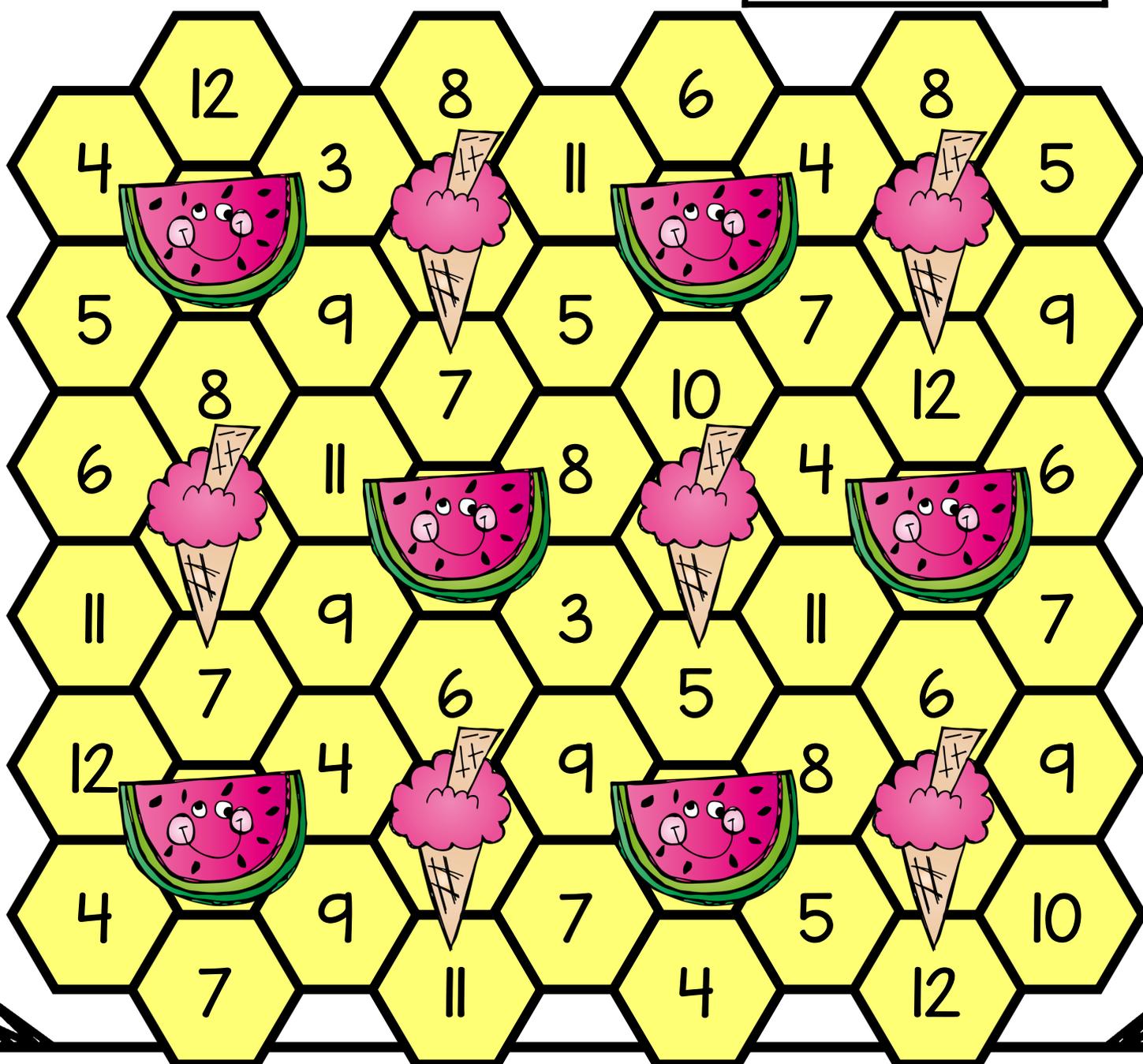
35	36	37	38	39	40

34	**Diving In**				

Division with Remainders

33	32	31	30	29	28

a game for 2-4 players   **Need: counters, dice**
Each player puts a counter on 7 to start. Players take turns to throw the dice and divide 7 by the number on the dice.

27

21	22	23	24	25	26

20	The remainder when 7 is divided by the number on the dice is the number of spaces that the player moves. If the number divides evenly the player stays on that space.

19	18	17	16	15	14

Players take turns dividing the number they are on by the number on the dice and move forward by the number of the remainder. First player to reach 40 is the winner.

13

7	8	9	10	11	12

START →

Round to the nearest 10.	Round to the nearest 100.	Round to the nearest 1000.	Round to the nearest 10.
4,296	4,180	2,450	6,977
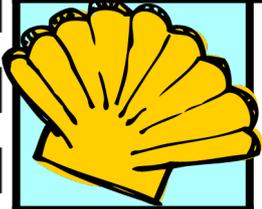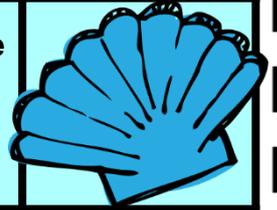
Sandy Fun
Round to nearest 10, 100 or 1,000

a game for 2 - 4 players **Need: counters, dice**

Each player puts a counter on Start. Players take turns to roll the dice and move forward that many spaces. The player reads the clue, finds a circle to match the clue and covers it with a counter. If no circle matches the clue, the player doesn't cover a circle on this turn. If a player lands on a shell, they can cover any number of their choice. The winner is the player to cover the last number.

Left column (top to bottom):
- Round to the nearest 10. 4,034
- Round to the nearest 1000. 7,258
- Round to the nearest 100. 6,917
- Round to the nearest 100. 4,335
- Round to the nearest 10. 6,983
- Round to the nearest 10. 2,140
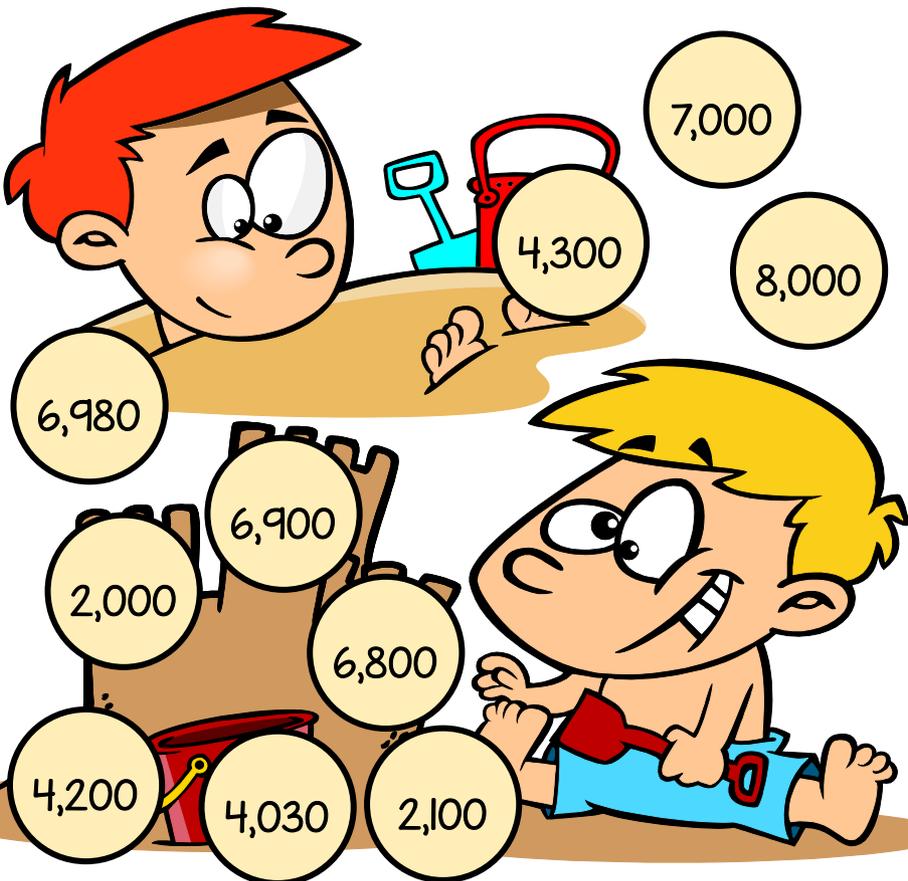
Right column (top to bottom):
- Round to the nearest 100. 7,962
- Round to the nearest 100. 6,856
- Round to the nearest 100. 4,240
- Round to the nearest 1000. 1,807
- Round to the nearest 1000. 6,790
- Round to the nearest 100. 6,770
- Round to the nearest 10. 2,095

Circles: 7,000 4,300 8,000 6,980 6,900 2,000 6,800 4,200 4,030 2,100

Bottom row:
Round to the nearest 100.	Round to the nearest 10.	Round to the nearest 1000.	Round to the nearest 100.
6,815	4,028	8,490	2,050
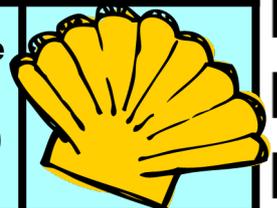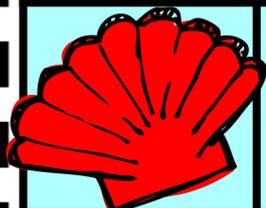
Take 4 and Multiply

Player 1

X

a game for 2 players
Need: 5 Counters,
Number Cards

Place the number cards face down beside the board. Each player chooses four number cards and then arranges them in their four boxes to make a multiplication with the highest possible answer. Calculate the answer for each player.

The player who creates the largest answer is the winner of the round and scores one point and takes a counter.

Player 2

X

For example - if a player chooses 2, 8, 4 and 3, they could make 432 x 8.

Play five rounds. The winner is the person who collects the most counters.

Number Cards for Take 4 and Multiply Game

0	1	2	3	4
5	6	7	8	9
0	1	2	3	4
5	6	7	8	9

Start →

| $\frac{3}{8}$ | $\frac{1}{7}$ | $\frac{1}{5}$ | $\frac{5}{7}$ |

$\frac{3}{5}$

$\frac{3}{7}$

$\frac{6}{7}$

$\frac{1}{6}$

$\frac{1}{4}$

$\frac{2}{7}$

Catch Me If You Can
Comparing Fractions

a game for 2 players   **Need: Counters, Dice**

Each player chooses a different START space for the game and puts a counter on it. Both players roll the dice and move forward that many spaces. Compare the value of the fractions and the player whose fraction is the largest moves forward 2 spaces. Use the fraction chart to check, if necessary.

Repeat and continue moving around the board and comparing values of the fractions. The winner is the player who is first to catch up to the other player or overtake the other player on the board.

$\frac{2}{3}$

$\frac{1}{2}$

$\frac{2}{5}$

$\frac{5}{8}$

$\frac{5}{6}$

$\frac{4}{7}$

| $\frac{1}{8}$ | $\frac{3}{4}$ | $\frac{1}{3}$ | $\frac{4}{5}$ |

Start ←

Fraction Chart for Catch Me If You Can
## Comparing Fractions
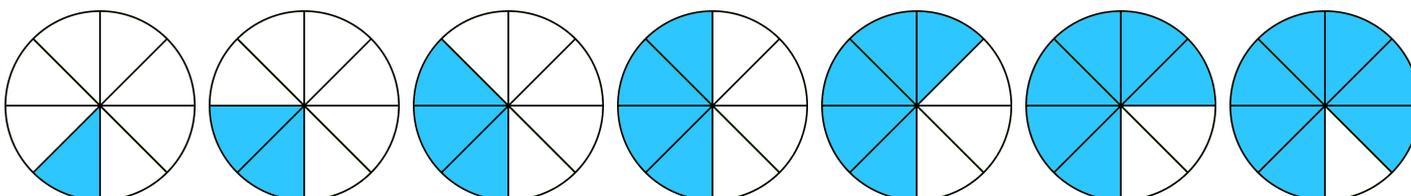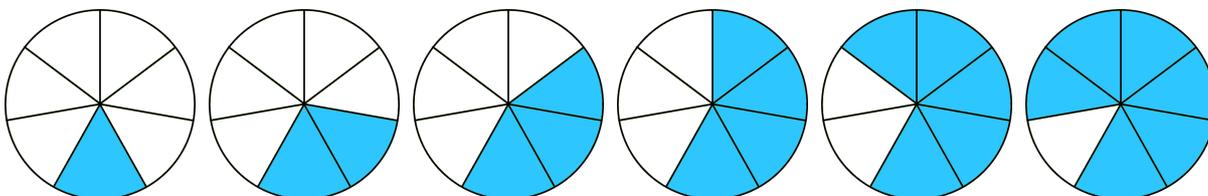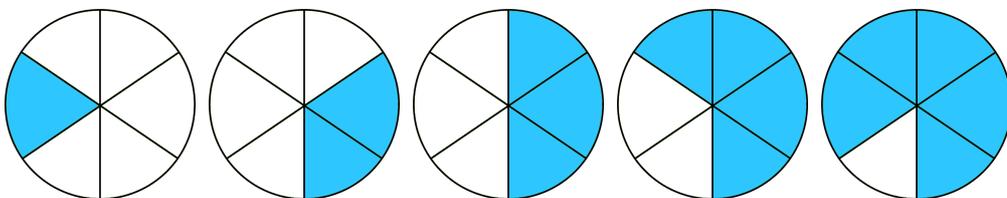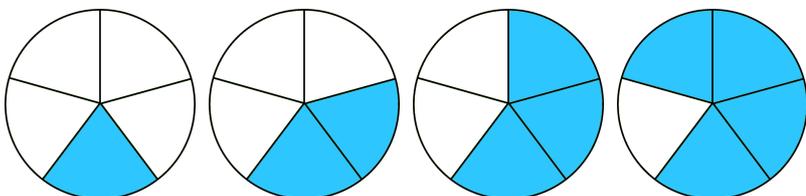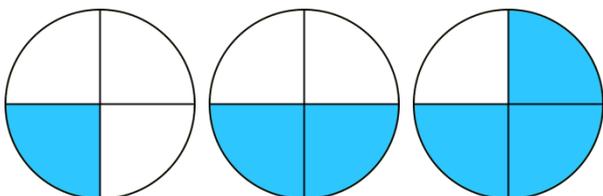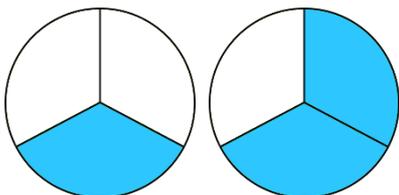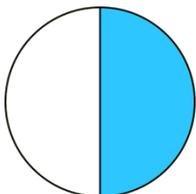
START →
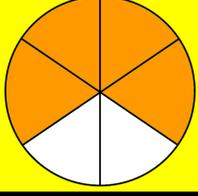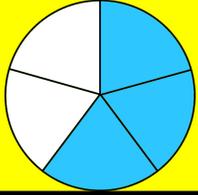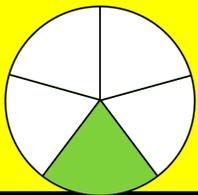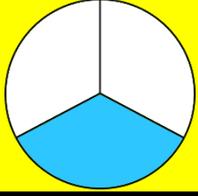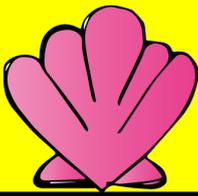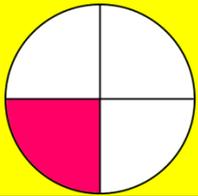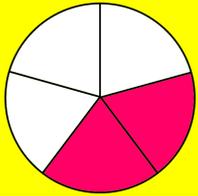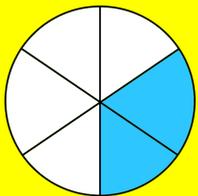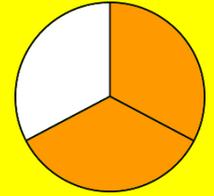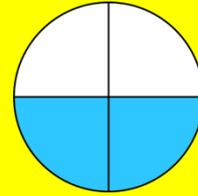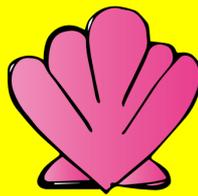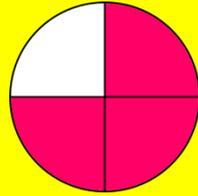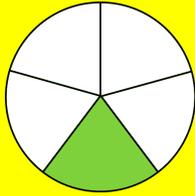
Beach Balls
Equivalent Fraction Game

a game for 2 - 4 players   **Need: counters, dice**

Each player puts a counter on Start. Players take turns to roll the dice and move forward that many spaces. The player works out the colored fraction of the circle they have landed on, finds a fraction with an equivalent value on a beach ball in the center and covers it with a counter. If no fractions match, the player doesn't cover a circle on this turn. If a player lands on a shell, they can cover any fraction of their choice. The winner is the player to cover the last fraction on a beach ball.

$\frac{2}{10}$ $\frac{6}{8}$ $\frac{4}{8}$

$\frac{8}{10}$ $\frac{6}{10}$ $\frac{8}{12}$

$\frac{2}{12}$

$\frac{4}{10}$

$\frac{2}{8}$

$\frac{10}{12}$ $\frac{2}{6}$ $\frac{1}{3}$
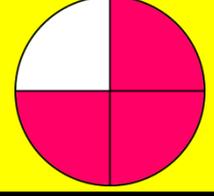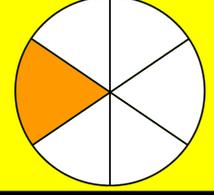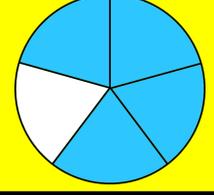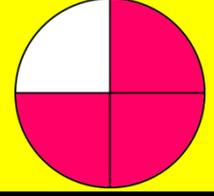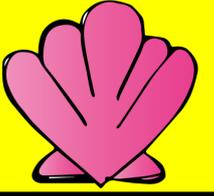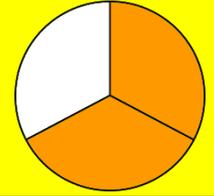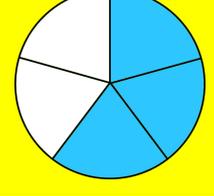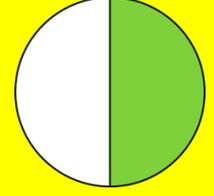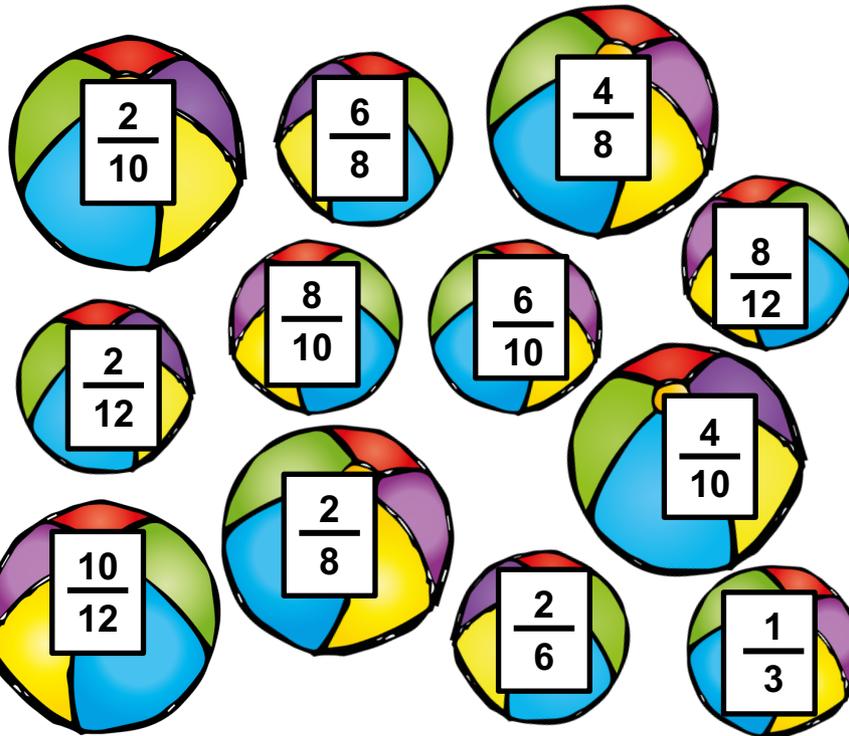
Angles and Shapes- Four in a Row

a game for 2 players
Need: Dice, Counters in 2 different colors

Players take turns to roll the dice. The player then checks the key to see what they can cover. They then use one of their counters to cover a shape that matches the clue. The first player to make a line of four is the winner. The line can go down, across or diagonally.

Roll this-	Cover a shape with-
1	an acute angle
2	an obtuse angle
3	a right angle
4	a right angle and an obtuse angle
5	only 1 set of parallel lines
6	2 sets of parallel lines