

Ring a Bell Numbers - Creative, Easy, Rewarding



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Ring a Bell Numbers



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Good for class game by teams



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Reinforces the importance of numbers



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Numbers as part of common knowledge



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Reinforces the importance of numbers

Numbers as part of common knowledge

Great way to review vocabulary

Provides segue into lesson

Engages all levels of learners

Relates mathematics to the real world



Ring a Bell Numbers (with wait time)

What is the significance of these numbers?

1. 3.141592 . . .

2.

3.

4.

5.



Ring a Bell Numbers

What is the significance of these numbers?

1. 3.141592 . . .

pi

2. 90

3.

4.

5.



Ring a Bell Numbers

What is the significance of these numbers?

1. 3.141592 . . . pi
2. 90 degrees in right angle
3. 365
- 4.
- 5.



Ring a Bell Numbers

What is the significance of these numbers?

1. 3.141592 . . . pi
2. 90 degrees in right angle
3. 365 number of days in a year
4. 24
- 5.



Ring a Bell Numbers

What is the significance of these numbers?

1. 3.141592 . . . pi
2. 90 degrees in right angle
3. 365 number of days in a year
4. 24 hours in a day
5. 186,000



Ring a Bell Numbers

What is the significance of these numbers?

1. 3.141592 . . . pi
2. 90 degrees in right angle
3. 365 number of days in a year
4. 24 hours in a day
5. 186,000 speed of light in miles per second



Effects when wait times are increased:

Length of students responses increases



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Unsolicited, appropriate responses increase



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Students ask more questions



Effects when wait times are increased:

Length of students responses increases

Unsolicited, appropriate responses increase

Failures to respond decrease

Students' confidence in their answers increases

Speculative thinking increases

Students ask more questions

Disciplinary actions decrease

– M. B. Rowe. *Wait, Wait, Wait. . . .School Science and Mathematics*



Try to pause after asking a question.

. . . . A pause of **three to five seconds** or even more will bring amazing results. Now the slow thinker will be able to participate.



Try to pause after asking a question.

. . . . A pause of three to five seconds or even more will bring amazing results. Now the slow thinker will be able to participate. . . . The longer pause gives them time to **think carefully** and gain confidence before responding.

– David R. Johnson, *Every Minute Counts*



Ring a Bell Numbers

What is the significance of these numbers?

6. 3, 4, 5

7.

8.

9.

10.



Ring a Bell Numbers

What is the significance of these numbers?

6. 3, 4, 5 smallest integer right triangle

7. 1.414

8.

9.

10.



Ring a Bell Numbers

What is the significance of these numbers?

6. 3, 4, 5 smallest integer right triangle

7. 1.414 . . . Square root of 2

8. 1776

9.

10.



Ring a Bell Numbers

What is the significance of these numbers?

6. 3, 4, 5 smallest integer right triangle

7. 1.414 . . . Square root of 2

8. 1776 Declaration of Independence

9. 32

10.



Ring a Bell Numbers

What is the significance of these numbers?

6. 3, 4, 5 smallest integer right triangle
7. 1.414 . . . Square root of 2
8. 1776 Declaration of Independence
9. 32 Temperature at which water freezes (F)
10. 2.54 . . .



Ring a Bell Numbers

What is the significance of these numbers?

6. 3, 4, 5 smallest integer right triangle
7. 1.414 . . . Square root of 2
8. 1776 Declaration of Independence
9. 32 Temperature at which water freezes (F)
10. 2.54 . . . Number of cm. in an inch



Ring a Bell Numbers (the “go for it” method)

What is the significance of these numbers?

This method of using *Ring a Bell Numbers* allows students to be more aggressive in answering.

It's more like a typical **game show format**.

This game can also be **played in teams**.



Ring a Bell Numbers (the “go for it” method)

What is the significance of these numbers?

11. 100

12.

13.

14.

15.



Ring a Bell Numbers

What is the significance of these numbers?

11. 100 yards on a football field

12. 1.618 . . .

13.

14.

15.



Ring a Bell Numbers

What is the significance of these numbers?

11. 100 yards on a football field

12. 1.618 . . . Golden ratio

13. 1

14.

15.



Ring a Bell Numbers

What is the significance of these numbers?

11. 100 yards on a football field

12. 1.618 . . . Golden ratio

13. 1 Multiplicative identity

14. 0

15.



Ring a Bell Numbers

What is the significance of these numbers?

11. 100 yards on a football field

12. 1.618 . . . Golden ratio

13. 1 Multiplicative identity

14. 0 Additive identity

15. 1729



Ring a Bell Numbers

What is the significance of these numbers?

11. 100 yards on a football field

12. 1.618 . . . Golden ratio

13. 1 Multiplicative identity

14. 0 Additive identity

15. 1729 $10^3 + 9^3 = 12^3 + 1^3$



Ring a Bell Numbers

What is the significance of these numbers?

16. $2.718281828 \dots$

17.

18.

19.

20.



Ring a Bell Numbers

What is the significance of these numbers?

16. $2.718281828 \dots$ e = base of natural logs

17. -40

18.

19.

20.



Ring a Bell Numbers

What is the significance of these numbers?

16. $2.718281828 \dots$ e = base of natural logs

17. -40 Celsius & Fahrenheit temps are =

18. $2^{32,582,657} - 1$

19.

20.



Ring a Bell Numbers

What is the significance of these numbers?

16. 2.718281828 . . . e = base of natural logs

17. -40 Celsius & Fahrenheit temps are =

18. $2^{32,582,657} - 1$ largest prime as of 10/18/06

19. 64

20.



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16. 2.718281828 . . . e = base of natural logs

17. -40 Celsius & Fahrenheit temps are =

18. $2^{32,582,657} - 1$ largest prime as of 10/18/06

19. 64 number of squares on a chess board

20. 88



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17. -40 Celsius & Fahrenheit temps are =

18. $2^{32,582,657} - 1$ largest prime as of 10/18/06

19. 64 number of squares on a chess board

20. 88 number of keys on a piano



Ring a Bell Numbers

Resources and credits

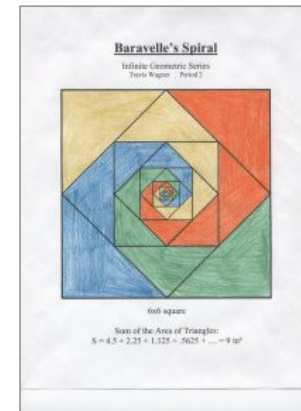
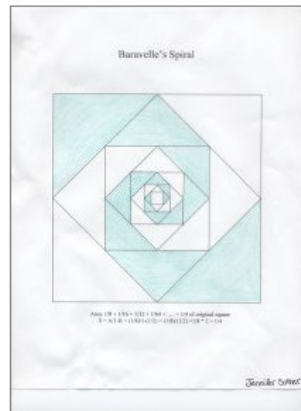
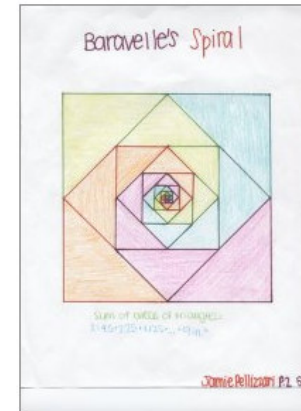
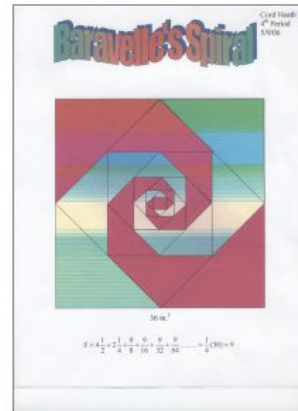
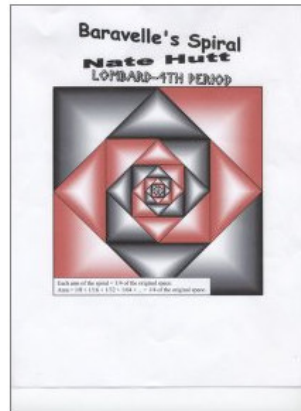
- M. B. Rowe. *Wait, Wait, Wait. . . .School Science and Mathematics*
- David R. Johnson, *Every Minute Counts*
- <http://creativecommons.org/image/>
- Bill's files and Bill's brain



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