2022 TJSSA State Futurity
Genetic Evaluation Quiz
Junior Division

You have 60 minutes to complete this quiz. Questions 31 through 35 are tiebreaker questions. Further ties will be broken by order of finish.
For each question, choose the best answer.

For questions 1 through 10, refer to the following sires. Information on these bulls can be found on the last sheet of your quiz.
Each bull may be used as an answer more than once.

    A. CLRS Dividend 405D
    B. ES Right Time FA110-4
    C. KBHR Cimarron F151
    D. LHT Top Tear 54H
    E. W/C Rest Easy 752G

1. Which bull should you expect to produce daughters whose calves wean the heaviest due to milk and growth?

2. Which bull has a red ancestor in his immediate pedigree?

3. Which bull should you expect to produce the highest percentage of unassisted births when used on heifers?

4. Which bull should you expect to produce offspring with the most post-weaning gain?

5. Which bull is the most proven?

6. Which bull should you expect to sire the lightest calves at birth?

7. How many of these bulls have a dam whose DNA is definitely on file?
    a. 1
    b. 2
    c. 3
    d. 4
    e. 5

8. Used on a group of 25 first-calf heifers, Bull E produced 22 unassisted births. What should you expect if Bull D had been used instead?
    a. Bull D would have produced more unassisted births.
    b. Bull D would have produced fewer unassisted births.
    c. Bull D would have produced longer gestations, on average.
    d. Bull D would have produced shorter gestations, on average.

9. What is the color coat status of Bull D's paternal granddam?
    a. Unknown
    b. Red
    c. Double Black
    d. Homozygous Black
    e. Heterozygous Black

10. How many of these bulls are better than breed average for the Marbling EPD?
    a. 5
    b. 4
    c. 3
    d. 2
    e. 1

11. Purebred Simmental Heifer 103J has a BW EPD of -1.4 with an accuracy of 0.4. What is the possible change of her BW EPD?
    a. 1.0
    b. 1.2
    c. 1.8
    d. 4.7

12. With 1660 progeny reported, which popular AI sire ranked as the most used bull for 2020?
    Note: This list was published in the March 2022 issue of the Register. *It recognizes progeny reported during the 2020 calendar year.*
    a. CCR Cowboy Cut 5048Z
    b. SO Remedy 7F
    c. WS Proclamation E202
    d. TJ Franchise 451D
    e. WLE Copacetic E02

13. Most genomic tests are performed on:
    a. bulls
    b. feeder calves
    c. donor cows
    d. replacement heifers

14. According to ASA's recommendations, what is the best practice when recording weaning weights for a contemporary group?
    a. Take weaning weights on all calves on the same day, when the majority of calves are 160 to 250 days of age.
    b. Take weaning weights on 2-3 separate days, weighing each calf when it is 180-220 days of age.
    c. Take weaning weights on many days, weighing each calf when it is 200-210 days of age.
    d. Take weaning weights on each calf when it is exactly 205 days of age.

15. SimAngus™ Cow C107 has a Marbling EPD of 0.73 and a Yield Grade EPD of -0.18. SimAngus™ Cow E33 has a Marbling EPD of 0.39 and a Yield Grade EPD of -0.40. Which bull should you expect to produce offspring that are more likely to grade USDA Prime?
    a. Cow C107
    b. Cow E33
    c. There will be no measurable difference.
    d. None of the above. Carcass EPDs apply only to sires.

16. Five shows are currently part of the National SimGenetics Show rotation. Which is not one of them?
    a. American Royal
    b. Cattlemen's Congress
    c. Houston Livestock Show & Rodeo
    d. North American International Livestock Exposition

17. What is the name of the website used to register and transfer SimGenetics animals and to search for animals registered with the American Simmental Association?
    a. Simmental.com
    b. SireSource.org
    c. DigitalBeef.com
    d. Herdbook.org

18. The Back Fat EPD (BF) is expressed in:
    a. square centimeters
    b. centimeters
    c. square inches
    d. inches

19. In EPD, what does the P stand for?
    a. Performance
    b. Pedigree
    c. Progeny
    d. Proven

20. Simmental Bull D14 has a YW EPD that ranks in the 40th Percentile. Simmental Bull D37 has a YW EPD that ranks in the 15th Percentile. Based on this information, which of the following should you definitely expect to be true?
    a. Bull D14 will have a higher WW EPD.
    b. Bull D37 will have a higher WW EPD.
    c. Bull D14 will produce offspring with heavier adjusted yearling weights, on average.
    d. Bull D37 will produce offspring with heavier adjusted yearling weights, on average.

21. Which of the following requires DNA testing for parental validation before it can be registered?
    a. Natural calf out of your donor cow
    b. ET calf resulting from an embryo you purchased
    c. Bull calf that you hope to later collect semen from
    d. Calf born out of a bred heifer you purchased

22. A heifer is registered as a Purebred Simbrah, with two Purebred Simbrah parents. Through DNA, it is discovered that she does not qualify to her sire. Instead, she was sired by a Purebred Simmental bull. What is her status in Herdbook?
    a. Her registration is suspended until a second parentage test is completed.
    b. Her pedigree is corrected, and she remains registered as Purebred Simbrah.
    c. Her pedigree is corrected, and she is registered as 3/4 SM 1/4 BR.
    d. She is no longer allowed to be registered with ASA.

23. True or False: Once a SimGenetics animal is registered, its EPDs will not change until its first calves are registered.
    a. True
    b. False

For questions 24 through 28, use the graphic below.

ASA #: 3766616
Registered
AMERICAN SIMMENTAL

BAR CK RED EMPIRE 9153G
Red
Polled (Homozygous Polled)

Tattoo: 9153G
Left Ear

Frozen Embryo Bull

PB SM

PQB GE

TraitTrac
(Check available results)

Owner: 360047 - RED EMPIRE GROUP
Breeder: 221034 - BAR CK CATTLE COMPANY

Birth Date: 2019-09-26
Original Issue: 2021-03-31

BOLT - 2022-05-10

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	19.6	-3.7	69.6	102.1	0.20	11.7	29.7	64.4	23.6	16.7	12.8	-0.44	0.52	-0.049	1.05	-0.41	185.1	91.4
PC	±3.82	±1.29	±7.99	±12.59	±0.014	±5.53	±9.16	±8.11	±5.11	±3.55	±9.65	±0.12	±0.148	±0.024	±0.215	±0.228		
ACC	0.51	0.57	0.51	0.51	0.51	0.30	0.23	0.33	0.28	0.29	0.50	0.40	0.43	0.41	0.50	0.09		
%	1	1	85	80	85	1	15	40	1	4	99	40	3	99	20	15	1	10

— Pedigree +

					Color	HPS
		IR IMPERIAL B772		2934737	BH	PP
	IR IMPERIAL D948			3210738	R	PP
		IR MS DUAL FOCUS W086		2570592	BH	PP
BAR CK RED EMPIRE 9153G				3766616	R	PP
		CDI VERDICT 220Y		2641380	R	PP
	WS MISS NORTHSTAR B180			2852221	R	PP
		WS TAMAR Z179		2795409	R	PP

24. What is this bull's maternal grandsire?
    a. CDI Verdict 220Y
    b. IR Imperial B772
    c. TNT Dual Focus W086
    d. IR Imperial D948

25. Which of the following common labels best fits this bull?
    a. Heifer Safe
    b. Show Bull
    c. Carcass Sire
    d. Proven

26. You flushed your red donor dam to this bull. She produced 14 viable embryos, which resulted in 8 confirmed pregnancies. How many of those calves should you expect to be red?
    a. 0
    b. 4
    c. 6
    d. 8

27. What is this bull's registration number?
    a. 360047
    b. 3766616
    c. 221034
    d. 3210738

28. You should definitely expect this bull to sire calves that are:
    a. born before 285 days of gestation
    b. born after 285 days of gestation
    c. heavier at birth compared to breed average
    d. lighter at birth compared to breed average

29. Simbrah Bull G713 has a MCE EPD of 4.2. Simbrah Bull F47 has a MCE EPD of 7.6. Based on this information, which of the following statements should you definitely expect to be true?
    a. A higher percentage of F47's daughters will remain productive in the herd at six years of age.
    b. A higher percentage of F47's daughters will breed to calve at or before 24 months of age.
    c. A higher percentage of F47's daughters will calve without assistance as heifers.
    d. A higher percentage of the heifers bred to F47 will calve without assistance.

30. On average, how much of an animal's genetic makeup is contributed by its sire?
    a. 75%
    b. 50%
    c. 25%
    d. 12.5%

TIEBREAKER QUESTIONS
Questions 31 through 35 are tiebreaker questions only.

31. You purchased a halfblood SimAngus™ heifer to show during the 2022 show season. At minimum, how many generations are you from producing a Purebred Simmental replacement heifer through this female?
    a. 1
    b. 2
    c. 3
    d. 4

32. Genetic correlation is expressed on a scale from:
    a. 1 to 100
    b. 0 to 100
    c. 0 to 1
    d. -1 to 1

33. One of your cows gives birth to a calf that shows definitive signs of a simple-recessive genetic defect. What does this mean?
    a. Only the sire of the calf is a carrier of the genetic defect.
    b. Only the dam of the calf is a carrier of the genetic defect.
    c. Both the sire and the dam of the calf are carriers of the genetic defect.
    d. It is uncertain which parent animal is the genetic defect carrier, so both should be DNA tested.

34. *Refer to the sires you used for Questions 1 through 10.*
    Consider the possible change of Bull A's YW EPD. What does this mean?
    a. The true value of Bull A's YW EPD is 67% likely to be within 3.6 points of its current value.
    b. The true value of Bull A's YW EPD is 75% likely to be within 3.6 points of its current value.
    c. The true value of Bull A's YW EPD is 95% likely to be within 3.6 points of its current value.
    d. The true value of Bull A's YW EPD is 99% likely to be within 3.6 points of its current value.
    e. The true value of Bull A's YW EPD is 100% likely to be within 3.6 points of its current value.

35. In ASA's whole herd reporting program, what is the fall calving season?
    a. July through December
    b. August through December
    c. September through December
    d. October through December

CLRS DIVIDEND 405D

ASA #: 3097854
Registered
AMERICAN SIMMENTAL

Black *(Homozygous Black)*
Polled *(Homozygous Polled)*

Tattoo: CLRS 405D
Left Ear

Single Birth Bull   PB SM   PQB GE   **TraitTrac**
(Check available results)

Owner: 330184 - APEX CATTLE-CLEAR SPRINGS CATTLE   **Birth Date:** 2016-01-31
Breeder: 287534 - CLEAR SPRINGS CATTLE CO   **Original Issue:** 2016-08-25

BOLT - 2022-05-10

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	11.3	0.8	83.3	130.5	0.30	4.9	10.5	52.1	16.2	14.7	28.2	-0.20	0.15	-0.048	0.50	-0.53	136.8	81.5
PC	±1.72	±0.27	±1.96	±3.6	±0.004	±2.77	±4.17	±3.51	±4.05	±2.15	±4.83	±0.09	±0.073	±0.016	±0.133	±0.2		
ACC	0.78	0.91	0.88	0.86	0.86	0.65	0.65	0.71	0.43	0.57	0.75	0.55	0.72	0.60	0.69	0.20		
%	45	35	30	20	15	70	99	95	55	15	55	99	40	99	99	1	35	35

− Pedigree **+**

			Color	HPS
	HOOK`S YELLOWSTONE 97Y	2612546	BB	PP
CLRS AFTER SHOCK 604 A		2735656	BB	PP
	HOOKS SARITA 4S	2334127	BB	PP
CLRS DIVIDEND 405D		3097854	BB	PP
	GW PREMIUM BEEF 021TS	*USAAR - 3358325*	2370545	BB	PP
CLRS BONNIA 405 B		2853921	BH	PP
	CLRS ZINNIA 200 Z	2642011	R	PP

ES RIGHT TIME FA110-4

ASA #: 3481590
Registered
AMERICAN SIMMENTAL

Black *(Homozygous Black)*
Polled *(Homozygous Polled)*

Tattoo: FA110-4
Right Ear

Fresh Embryo Bull   PB SM   PQB GE   **TraitTrac**
(Check available results)

Owner: 214702 - CK CATTLE COMPANY   **Birth Date:** 2018-02-15
Breeder: 004441 - EICHACKER SIMMENTALS   **Original Issue:** 2018-10-29

BOLT - 2022-05-10

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	6.6	3.5	88.6	145.5	0.36	2.2	22.8	67.0	18.4	10.4	38.0	-0.32	0.30	-0.073	0.79	-0.32	142.6	86.6
PC	±3.28	±0.84	±5.38	±8.48	±0.009	±5.21	±9.04	±7.74	±4.76	±3.05	±8.49	±0.12	±0.12	±0.024	±0.202	±0.237		
ACC	0.58	0.72	0.67	0.67	0.67	0.34	0.24	0.36	0.33	0.39	0.56	0.42	0.54	0.41	0.53	0.05		
%	95	90	15	10	2	99	60	30	30	65	20	95	15	75	75	65	25	20

− Pedigree **+**

			Color	HPS
	HTP SVF IN DEW TIME	*CANSM - 671317*	2285555	BB	PP
WELSHS DEW IT RIGHT067T		2403649	BB	PP
	SVF/NJC SENERITA N29	2204433		P
ES RIGHT TIME FA110-4		3481590	BB	PP
	REMINGTON LOCK N LOAD54U	*CANSM - 709087*	2503661	BH	PP
ES A110		2752773	BB	PP
	ESU56	2448632	BB	PP

KBHR CIMARRON F151

ASA #: 3499731
Registered
AMERICAN SIMMENTAL
EID:840003150639935

Black *(Homozygous Black)*
Polled *(Homozygous Polled)*

Tattoo: F151
Left Ear

Frozen Embryo Bull   PB SM   PQB GE   **TraitTrac**
(Check available results)

Owner: 004086 - BRIDLE BIT SIMMENTALS   **Birth Date:** 2018-03-22
Breeder: 066206 - KELLERS BROKEN HEART RANCH   **Original Issue:** 2019-03-27

BOLT - 2022-05-10

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	15.1	-4.2	61.0	95.1	0.21	11.4	26.2	56.6	22.3	12.8	25.2	-0.33	0.87	-0.023	1.05	-0.39	193.7	94.5
PC	±2.73	±0.72	±4.4	±6.68	±0.007	±4.74	±8.45	±7.38	±4.19	±3	±7.14	±0.1	±0.114	±0.02	±0.176	±0.237		
ACC	0.65	0.76	0.73	0.74	0.74	0.40	0.29	0.39	0.41	0.40	0.63	0.48	0.56	0.51	0.59	0.05		
%	10	1	99	95	75	1	30	80	2	35	65	90	1	99	20	25	1	4

− Pedigree **+**

			Color	HPS
	HOOKS SHEAR FORCE 38K	*CANSM - 684162*	2081939	BH	PP
HOOK`S BEACON 56B		*USAAR - 4271289*	2854180	BB	PP
	HOOKS ZAFIRAH 41Z	2802160	BH	PP
KBHR CIMARRON F151		3499731	BB	PP
	WS HOT BEEF X38	2548377	B	PP
BAR CK MS X38 106Z		2682358	BB	PP
	BAR CK MS MEAT MKR 323T	2378699	B	P

LHT TOP TEAR 54H

ASA #: 3805518
Registered
AMERICAN SIMMENTAL

Black (Homozygous Black)
Polled

Tattoo: 54H
Both Ears

Single Birth Bull   PB SM   PQS GE   **TraitTrac**
(Check available results)

| Owner: | 345091 - KRIEGEL, CURTIS | Birth Date: | 2020-01-10 |
| Breeder: | 002467 - TRAUERNICHT SIMMENTALS | Original Issue: | 2020-11-21 |

BOLT - 2022-05-10

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	11.4	3.7	94.3	135.5	0.26	5.7	34.9	82.0	21.4	15.7	43.8	-0.41	-0.08	-0.105	0.89	-0.38	132.4	81.5
PC	±4.37	±1.53	±8.64	±13.62	±0.015	±6	±10	±8.95	±5.18	±3.1	±10.04	±0.12	±0.143	±0.024	±0.232	±0.242		
ACC	0.44	0.49	0.47	0.47	0.47	0.24	0.16	0.26	0.27	0.38	0.48	0.38	0.45	0.41	0.46	0.03		
%	45	90	10	15	40	50	2	1	4	10	10	60	95	20	50	30	45	35

– Pedigree +

			Color	HPS
		TJ MAIN EVENT 503B	2891336	BB	PP
	TJ TEARDROP 783F		3459734	BB	PP
		TJ MS 38W	2529932	BH	PP
LHT TOP TEAR 54H			3805518	BB	P
		CCR COWBOY CUT 5048Z CANSM - 790139	2703910	BB	PP
	LHT MS COWBOY CUT 169E		3315800	B	P
		LHT MS RANCH HAND 192W	2506289	B	P

W/C REST EASY 752G

ASA #: 3644912
Registered
AMERICAN SIMMENTAL

Black (Homozygous Black)
Polled (Homozygous Polled)

Tattoo: 752G
Left Ear

Single Birth Bull   PB SM   PQS GE   **TraitTrac**
(Check available results)

| Owner: | 355120 - WESTERN CATTLE SOURCE SELECT SIRES | Birth Date: | 2019-02-27 |
| Breeder: | 003773 - WERNING, DALE | Original Issue: | 2019-12-03 |

BOLT - 2022-05-10

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	16.4	-2.9	80.8	127.0	0.29	8.7	30.8	71.1	14.1	13.6	31.7	-0.45	0.17	-0.083	1.06	-0.30	147.5	88.9
PC	±3.43	±0.96	±6.36	±10.54	±0.011	±5.69	±10.23	±8.83	±5.18	±3.15	±9.46	±0.12	±0.138	±0.024	±0.224	±0.235		
ACC	0.56	0.68	0.61	0.59	0.59	0.28	0.14	0.27	0.27	0.37	0.51	0.39	0.47	0.39	0.48	0.06		
%	3	2	40	25	20	10	10	15	75	25	40	35	40	55	15	75	20	15

– Pedigree +

			Color	HPS
		HOOK`S BOZEMAN 8B	2854480	BB	PP
	MR SR 71 RIGHT NOW E1538		3325668	BB	PP
		MISS SR C1538	3078408	BB	PP
W/C REST EASY 752G			3644912	BB	PP
		W/C EXECUTIVE ORDER 8543B	2900283	BH	PP
	W/C MISS WERNING 752E		3479632	B	PP
		W/C MISS WERNING 5343C	3045545	BB	PP

American Simmental Association Possible Change Table

Acc	CE	BW	WW	YW	MCE	Mlk	MWW	Stay	CW	YG	Mrb	BF	REA	WB
0.0	7.8	3.0	16.3	25.7	7.9	11.9	12.1	7.1	19.3	0.20	0.26	0.04	0.43	0.25
0.1	7.0	2.7	14.7	23.1	7.1	10.7	10.9	6.4	17.4	0.18	0.23	0.04	0.39	0.23
0.2	6.2	2.4	13.0	20.6	6.3	9.5	9.7	5.7	15.4	0.16	0.21	0.03	0.34	0.20
0.3	5.4	2.1	11.4	18.0	5.5	8.3	8.5	4.9	13.5	0.14	0.18	0.03	0.30	0.18
0.4	4.7	1.8	9.8	15.4	4.7	7.1	7.3	4.2	11.6	0.12	0.16	0.02	0.26	0.15
0.5	3.9	1.5	8.2	12.9	3.9	6.0	6.1	3.5	9.7	0.10	0.13	0.02	0.22	0.13
0.6	3.1	1.2	6.5	10.3	3.1	4.8	4.8	2.8	7.7	0.08	0.10	0.02	0.17	0.10
0.7	2.3	0.9	4.9	7.7	2.4	3.6	3.6	2.1	5.8	0.06	0.08	0.01	0.13	0.08
0.8	1.6	0.6	3.3	5.1	1.6	2.4	2.4	1.4	3.9	0.04	0.05	0.01	0.09	0.05
0.9	0.8	0.3	1.6	2.6	0.8	1.2	1.2	0.7	1.9	0.02	0.03	0.00	0.04	0.03
1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00